



Contents lists available at ScienceDirect

Organizational Behavior and Human Decision Processes

journal homepage: www.elsevier.com/locate/obhdp



The (better than expected) consequences of asking sensitive questions[☆]

Einav Hart^{a,*}, Eric M. VanEpps^b, Maurice E. Schweitzer^c

^a George Mason University, United States

^b University of Utah, United States

^c University of Pennsylvania, United States

ARTICLE INFO

Keywords:

Conversation

Questions

Strategic information exchanges

Impression management

Communication Motives and Expectations

Model

ABSTRACT

Within a conversation, individuals balance competing objectives, such as the motive to gather information and the motive to create a favorable impression. Across five experimental studies ($N = 1427$), we show that individuals avoid asking sensitive questions because they believe that asking sensitive questions will make their conversational partners uncomfortable and cause them to form negative perceptions. We introduce the Communication Motives and Expectations Model and we demonstrate that the aversion to asking sensitive questions is often misguided. Question askers systematically *overestimate* the impression management and interpersonal costs of asking sensitive questions. In conversations with friends and with strangers and in both face-to-face and computer-mediated conversations, respondents formed similarly favorable impressions of conversational partners who asked sensitive questions (e.g., “How much is your salary?”) as they did of conversational partners who asked non-sensitive questions (e.g., “How do you get to work?”). We assert that individuals make a potentially costly mistake when they avoid asking sensitive questions, as they overestimate the interpersonal costs of asking sensitive questions.

1. Introduction

In addition to satiating our curiosity, asking sensitive questions can help us learn important information. For example, learning how much a friend pays in rent or how much a co-worker earns can inform important economic decisions that we make. Similarly, asking a new acquaintance if they are single, what their political views are, or when they might have a new baby can help us navigate our social world. Yet many individuals avoid asking sensitive questions. Past work has explored how would-be respondents might avoid *answering* difficult questions (Bitterly & Schweitzer, 2017; John, Acquisti, & Loewenstein, 2011; Rogers & Norton, 2011), but little work has investigated whether conversational partners will *ask* sensitive questions in the first place.

Despite the popular adage that there is “no such thing as a stupid question,” etiquette experts generally caution us against asking questions. In fact, Duffey (1877 “The Ladies’ and Gentlemen’s Etiquette”) advises people to avoid asking virtually any type of question as a matter of polite society. This prohibition against asking questions, and in particular asking sensitive questions, seems to stem from agreed-upon norms to avoid causing discomfort (Brown & Levinson, 1987;

Goffman, 1967). As humorist Dave Barry asserted, many types of questions, such as asking a woman if she is pregnant, should remain off-limits in almost every situation, “unless you can see an actual baby emerging from her at that moment” (Barry, 1998). The concern is that by asking a sensitive question, askers may cause discomfort that ultimately harms their relationship with their conversational partner.

In this article, we explore the aversion conversational partners have to asking sensitive questions. In related scholarship investigating survey methods, Tourangeau and Smith (1996, p. 276) define a sensitive question as one that “raises concerns about disapproval or other consequences (such as legal sanctions) for reporting truthfully or if the question itself is seen as an invasion of privacy.” For example, they define asking survey questions about sexual contact and drug use as sensitive questions. Consistent with this definition and related prior work (Acquisti, John, & Loewenstein, 2012; John et al., 2011; John, Loewenstein, & Prelec, 2012; Tourangeau & Yan, 2007), we define sensitive questions as questions that are 1) *about topics that are uncomfortable to discuss*, 2) *inappropriate for the social context*, or 3) *about information respondents would rather keep private*. Of course, some questions can fit all three criteria (e.g., asking a wedding guest if she has ever slept

[☆] This article is part of the special issue “The Psychology of Conversation,” Edited by Alison Wood Brooks, Mike Norton, Dan Gilbert, and Ethan Kross.

* Corresponding author at: George Mason University, 4400 University Drive MSN 5F5, Fairfax, VA 22030–4022, United States.

E-mail address: ehart8@gmu.edu (E. Hart).

<https://doi.org/10.1016/j.obhdp.2020.10.014>

Received 24 May 2019; Received in revised form 14 October 2020; Accepted 19 October 2020

Available online 30 November 2020

0749-5978/© 2020 Published by Elsevier Inc.

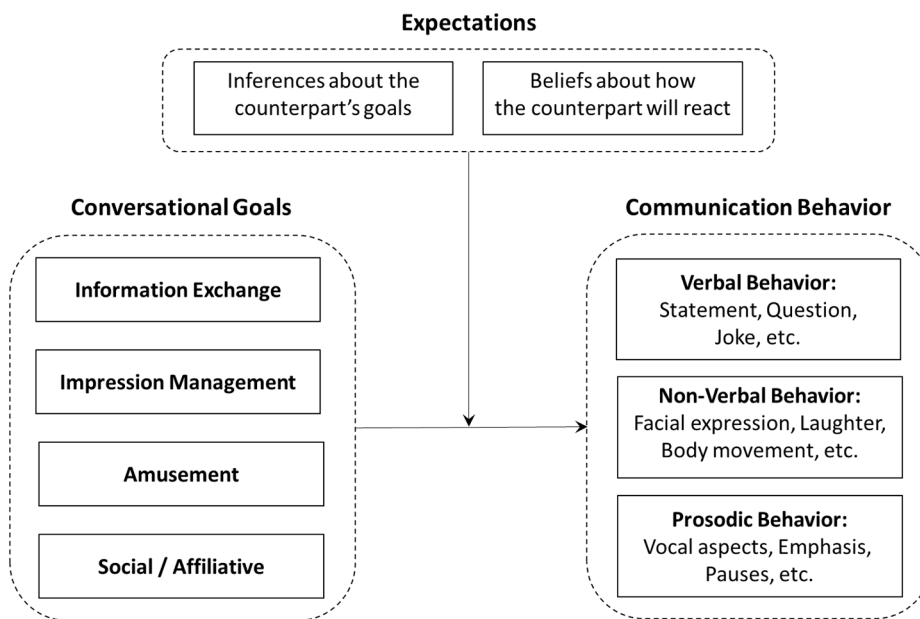


Fig. 1. Communication Motives and Expectations Model. *Note.* According to the Communication Motives and Expectations Model, individuals develop expectations about their conversational partner and make conversational choices to advance their conversational goals. **Conversational Goals:** In addition to exchanging information, individuals engage in communication to pursue a diverse set of objectives, including but not limited to managing impressions (e.g., to influence interpersonal perceptions), amusing oneself or one's counterpart, building rapport, and guiding action. **Expectations:** Individuals' beliefs about their counterparts' goals (e.g., competitive v. collaborative) and how their conversational partners will react to a conversational choice will moderate their communication behavior. Importantly, these expectations may or may not be accurate. For example, an individual may avoid asking a sensitive question (or asking for advice) because they mistakenly believe that a counterpart will react negatively – and that the interpersonal costs of asking will be high. **Communication Behavior:** In this investigation, we study the questions that people choose, though this model generally extends to include a variety of communication behaviors, both verbal and non-verbal, such as questions, statements, expressions, and prosodic behavior.

with the groom). Although classifying a question as a sensitive question may depend on the setting, the relationship between the conversational partners (e.g., friends, coworkers, or strangers), and cultural norms (e.g., one's salary might be a sensitive topic in the U.S., but less so in the Middle East; Gelfand & Brett, 2004), we expect broad consensus on the sensitivity of many questions across a variety of contexts, opening the door for empirical investigation of when sensitive questions are posed or avoided.

Although etiquette experts have counseled individuals to avoid asking questions, this advice reflects intuition rather than careful investigation. Recent scholarship suggests that intuitive beliefs about effective impression management strategies may not be very accurate (see Steinmetz, Sezer, & Sedikides, 2017, for a recent review), and we postulate that prescriptive advice to avoid asking sensitive questions may reflect misguided intuitions about impression management. Across five experimental studies, we challenge conventional wisdom about avoiding sensitive questions, and we break new ground in three ways. First, our findings describe both topical (e.g., questions about income and personal relationships) and contextual factors (e.g., face-to-face versus computer-mediated conversations) that influence how willing individuals are to ask sensitive questions. Second, we describe the underlying mechanism that accounts for the aversion to asking sensitive questions. We show that individuals' reticence to ask sensitive questions is triggered by concern about causing a conversational partner discomfort and harming interpersonal impressions. Third, we assess the consequences of asking sensitive questions and show that askers overestimate both discomfort and impression management harm, and consequently seldom ask sensitive questions. As a result, potential question askers miss opportunities both to learn valuable information and to learn that their sensitive questions would likely be better received than they anticipate.

1.1. Asking questions

By avoiding sensitive questions, individuals may limit the information that they learn. Some of the information they fail to learn could be important. For example, by not asking colleagues about their salaries, individuals may fail to recognize their own salary potential and make decisions that limit the amount they earn. The willingness to ask

sensitive questions can also prevent individuals from forming mistaken assumptions. For example, question askers may learn that unexpected behaviors, such as a colleague injecting themselves in a bathroom stall, are in fact benign, and simply an insulin injection for treating diabetes. The cost of failing to ask sensitive questions may be especially high in strategic information exchanges, such as negotiations and interviews (Minson, VanEpps, Yip, & Schweitzer, 2018); in these settings, information gathering is particularly important and individuals have incentives to conceal information. Prior work has stressed the importance of asking questions in these contexts, and demonstrated that by asking questions individuals can gather valuable information (Huang, Yeomans, Brooks, Minson, & Gino, 2017; Minson et al., 2018; Schweitzer & Croson, 1999; Thompson & Hastie, 1990).

Although questions have largely been conceptualized as a conversational tool to gather information, several scholars have documented important ways in which questions can advance other conversational objectives as well. In Fig. 1, we introduce the Communication Motives and Expectations Model to describe the different goals individuals may pursue within a conversation (e.g., to gather information or manage impressions) using different communication behaviors, including questions. Even when the information a question asker gleans from asking a question is slight, the act of asking may still influence relational outcomes. For instance, questions can be used to express interest in others (Brooks, Gino, & Schweitzer, 2015; Chen, Minson, & Tormala, 2010), which in turn can improve interpersonal impressions and the quality of future interactions. Questions also create opportunities to share information, both by communicating information about a question asker's level of interest and expertise (Minson et al., 2018) and by triggering reciprocal questions (Hauser, Yeomans, Brooks, & Norton, in preparation). In some cases, such as at a cocktail party, banal questions may bore a counterpart or create a forgettable impression. In contrast to asking low-risk questions, asking sensitive questions is risky; sensitive questions may cause discomfort – or they may initiate an engaging and meaningful conversation. Questions can also increase liking by enabling respondents to talk about themselves, an enjoyable proposition for most conversational partners (Huang et al., 2017; Sprecher et al., 2013), which can increase perceptions of interpersonal closeness (Aron, Melinat, Aron, Vallone, & Bator, 1997).

A related literature has begun to explore the interplay between

questions, disclosure, and impression management. John et al. (2011) investigated disclosure of past unethical behavior and found that the way sensitive questions are framed influences the disclosure of sensitive information. For example, individuals' willingness to divulge sensitive information increases when they believe that disclosing sensitive information is the norm (Acquisti et al., 2012). In other work, Minson et al. (2018) found that the way a question is phrased can increase disclosures by shifting perceptions of the question asker's knowledge and assertiveness.

In addition to soliciting information, questions can convey information about the asker's intentions, expectations, and knowledge (Holtgraves, Eck, & Lasky, 1997; Näher & Krumpal, 2012; Schaeffer & Presser, 2003). How questions are phrased can also influence perceptions of the appropriateness and riskiness of particular behaviors (Belli, Moore, & VanHoewyk, 2006; Belli, Traugott, Young, & McGonagle, 1999; Catania et al., 1996), which in turn can influence disclosure (John et al., 2011; Williams, Block, & Fitzsimons, 2006). Importantly, some questions can reveal unflattering information. For example, when individuals ask for help, they risk revealing their inability to complete a task on their own (Gino, Brooks, & Schweitzer, 2012; Lee, 2002). As a result, people may be reluctant to ask for help or advice to avoid the anticipated social cost of acknowledging one's dependence upon others (DePaulo & Fisher, 1980; Lee, 1997). However, help-seekers often mispredict the consequences of asking for help. Not only do they underestimate the likelihood that others would be willing to help them if they asked (Flynn & Lake, 2008), but they also overestimate the discomfort they would cause potential helpers (Bohns & Flynn, 2010). In fact, Brooks et al. (2015) found that seeking advice can actually *boost* perceptions of the advice seekers' competence, because advisors feel flattered to have been asked and infer that the advice seeker appreciates their expertise. Building on this work, we predict a perspective taking failure in asking sensitive questions. Specifically, we postulate that question askers will systematically misperceive the interpersonal costs of asking sensitive questions.

1.2. Conversational forecasting errors

Individuals often struggle to predict the downstream consequences of their actions. This is true when individuals make predictions for themselves (e.g., affective forecasting errors, see Buehler & McFarland, 2001; Wilson & Gilbert, 2003; Gilbert, Lieberman, Morewedge, & Wilson, 2004; Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998) and when individuals make predictions about others (e.g., perspective taking errors, see Scopelliti, Loewenstein, & Vosgerau, 2015). In this work, we consider forecasting failures related to conversations (Bohns & Flynn, 2010; Brooks, Gino, & Schweitzer, 2015; Dorison, Minson, & Rogers, 2019; Epley & Schroeder, 2014; Kruger, Epley, Parker, & Ng, 2005). We build on work that has found that individuals often engage in ineffective impression management tactics (Steinmetz et al., 2017). These tactics include humblebragging, boastful behavior that fails to boost interpersonal impressions (Sezer, Gino, & Norton, 2017), backhanded compliments (Sezer, Brooks, & Norton, 2018), attempts to hide one's own successes (Roberts Levine, & Sezer, 2020), and overly-friendly communication strategies in negotiation (Jeong, Minson, Yeomans, & Gino, 2019). In each of these cases, individuals mispredict the consequences of their conversational strategies on their counterparts.

In general, perspective-taking is difficult (Caruso, Epley, & Bazerman, 2006; Ross, Greene, & House, 1977), and perspective-taking errors in conversations may contribute to forecasting errors conversational partners make. This may be particularly true for sensitive topics that might cause a question asker to feel uncomfortable or embarrassed. If individuals project their own discomfort (e.g., discomfort triggered by asking a sensitive question) to a conversational partner, they may overestimate the costs of asking sensitive questions. Of course, there are occasions in which a sensitive question might offend a conversation partner and cause relational harm. However, we propose that the mental

model by which individuals estimate the costs and benefits of asking sensitive questions is systematically biased to overestimate the likelihood that a counterpart will be offended and underestimate the likelihood of a neutral or positive response. As a result, would-be askers likely overestimate the relational costs of asking these questions and may thus avoid asking sensitive questions.

In our investigation, we focus on sensitive questions. Consistent with our definition, we operationalize sensitive questions as those that independent observers rated to be "sensitive," "uncomfortable," "inappropriate," and "intrusive." Individuals expect sensitive questions to cause discomfort (Tourangeau & Yan, 2007), and we postulate that, like asking for help, individuals overestimate the harm that asking sensitive questions will cause—both to their conversational partner and to the impressions their conversational partners' form of them. As a result, we predict that individuals will avoid asking sensitive questions, both in relatively anonymous (e.g., via computer-mediated chat) and in identifiable (e.g., face-to-face) interactions, due to biased impression management concerns and concerns about others' discomfort. Even in anonymous conversations, in which question-askers should be relatively comfortable asking questions, we expect that askers will avoid asking sensitive questions. We also expect this aversion to asking sensitive questions to reflect a bias; we predict that respondents will be significantly less offended by sensitive questions than askers expect.

1.3. Research overview

We postulate that askers' aversion to asking sensitive questions reflects a failed mental model: Askers anticipate that sensitive questions will offend respondents and harm interpersonal impressions more than they actually do. As a result, potential question askers miss opportunities to ask potentially valuable but sensitive questions. We explore this thesis across different conversational contexts, conversations with strangers and with friends, and conversations that are conducted both face-to-face and via computer.

In our studies, we investigate when askers are willing to ask sensitive questions, and we explore the proposition that askers misperceive the impact of their questions on respondents' feelings and impressions of them. We conducted pilot studies to identify and validate a set of sensitive questions and topics, and we show that despite individuals' reluctance to ask these pre-tested sensitive questions, they expect these same questions to yield more valuable information than they would gain from asking our pre-tested non-sensitive questions. Therefore, we conceptualize the decision to ask sensitive questions as a trade-off between eliciting more valuable information and avoiding the perceived relational risks of offending conversational partners. Across five experimental studies, we show that askers avoid asking sensitive questions, and that they anticipate that asking these questions will trigger discomfort and harm respondents' impressions of them.

In Studies 1 and 2, Askers and Respondents interacted via an online chat platform. We contrast Askers' estimates of the impact of their sensitive questions on Respondents' impressions and discomfort with Respondents' actual impressions and discomfort. In Study 2, we investigate the relationship between Askers' predictions about the impact of asking sensitive questions and the questions that Askers chose to ask.

In Study 3, we explore Askers' willingness to ask sensitive questions with monetary incentives, and assess the economic consequences of the reluctance to ask sensitive questions. In Study 4, we extend our investigation to face-to-face conversations, and explore Askers' willingness to ask sensitive questions even when they can attribute the selection of the questions to a third party. In Study 5, we again study face-to-face conversations, and we investigate differences in Askers' mental models of the impact of sensitive questions on Respondents when the Respondent is either a friend or a stranger. The data from all studies can be found at the Open Science Framework page (<https://osf.io/gwpa8/>).

Table 1

Sensitive and Non-Sensitive questions used in Pilot Study C and Studies 1–4.

	Sensitivity rating	Study 3 payments
Sensitive Questions	4.04 (1.04)	
1. Have you ever cheated on a partner [had an affair]?	4.49 (0.77)	[\$0.30]
2. What are your views on abortion?	4.29 (0.90)	[\$0.40]
3. How much is your salary?	4.05 (0.97)	[\$0.30]
4. Have you had sexual thoughts about someone of the same sex?	4.23 (1.03)	[\$0.40]
5. What are your views on immigration?	3.40 (1.13)	[\$0.40]
6. Have you ever committed a crime?	4.36 (0.81)	
7. What are your views about gun control?	3.27 (1.12)	
8. Have you ever done drugs?	3.94 (1.14)	
9. Have you ever had financial problems?	4.21 (0.81)	
10. What is the worst lie you've told a partner?	4.12 (0.93)	
Non-Sensitive Questions	1.64 (0.95)	
1. What do you think about the weather?	1.18 (0.62)	[\$0.05]
2. What are your current job responsibilities?	2.06 (0.94)	[\$0.10]
3. Are you a morning person?	1.49 (0.88)	[\$0.05]
4. What travel route do you typically use to get to work [school]?	1.90 (1.05)	[\$0.10]
5. How did you get your current job?	2.22 (0.95)	[\$0.10]
6. What are your views on pop music?	1.47 (0.83)	
7. How many hours do you work?	1.91 (0.89)	
8. Have you ever mowed a lawn?	1.33 (0.91)	
9. What season do you like best?	1.26 (0.80)	
10. How many people do meet in a day?	1.60 (0.96)	

Note. In Study 1 we used three different question sets: The Sensitive set included all ten sensitive questions; the Non-Sensitive set included all ten non-sensitive questions; the Mixed set included the first five questions from the Sensitive set and the first five questions from the Non-Sensitive set. In Studies 2–4, we used the same Mixed set, which comprised Sensitive Questions 1–5 and Non-Sensitive Questions 1–5. In each study, participants chose five questions from a set of ten questions. Questions were always presented in random order, without tags indicating whether they were sensitive or non-sensitive. Versions of the same question are written in square brackets.

2. Pilot Study A: Sensitive questions

We first conducted a pilot study to generate sensitive questions for our main studies. We were particularly interested in sensitive questions that could yield valuable information, so we asked 50 MTurkers (40.0% female; $M_{\text{age}} = 36.9$, $SD = 10.8$) to describe three things that they “would like to know about a coworker, but would feel uncomfortable asking.” For each question or topic they listed, we asked participants if they would ask this question of a specific coworker (Yes/No), if they would ask the question anonymously if they could (Yes/No), how comfortable they would be if they asked this question, how likely their coworker would be to answer the question, how comfortable their coworker would be answering this question, and how appropriate the question is to ask (rated on 5-point scales). We paid participants \$0.50 for completing the survey.

Participants were most interested in, but averse to asking about, coworkers' relationships (23.0% of questions), lifestyle choices (15.1%), job aspirations (11.5%) and income (10.1%). We list the most common topics and sample questions in [Appendix A](#). Notably, participants' willingness to ask each question ($M = 35\%$, $SD = 47.7$) was significantly correlated with how comfortable they thought their coworker would be answering the question ($M = 2.75$, $SD = 1.29$; $R = 0.52$, $p < .001$), and with how appropriate they thought the question was to ask ($M = 2.67$, $SD = 1.27$; $R = 0.44$, $p < .001$). Participants' willingness to ask the question *anonymously* ($M = 70\%$, $SD = 46.0$) was also correlated with the coworker's comfort ($R = 0.20$, $p = .015$) and with question appropriateness ($R = 0.27$, $p < .001$). We present the full correlation table in the Supplementary Online Materials.

Table 2

Frequency of each question being chosen by the Asker, for each study.

	Study 1	Study 2	Study 3	Study 4
Sensitive questions				
Have you ever cheated on a partner [had an affair]?	45.9%	44.4%	53.0%	41.8%
What are your views on abortion?	36.1%	42.9%	64.2%	35.8%
How much is your salary?	45.9%	41.4%	67.4%	17.9%
Have you had sexual thoughts about someone of the same sex?	21.3%	50.5%	41.4%	12.7%
What are your views on immigration?	47.5%		74.9%	37.3%
How many kids do you have?		65.7%		
Non-Sensitive questions				
What do you think about the weather?	68.9%	55.1%	36.3%	81.3%
What are your current job responsibilities?	52.5%	42.9%	39.5%	49.3%
Are you a morning person?	82.0%	67.7%	31.6%	88.8%
What travel route do you typically use to get to work [school]?	24.6%	35.9%	43.3%	
How did you get your current job?	67.2%	53.5%	48.4%	69.4%
How many hours do you work?				65.7%

Note. In Studies 1, 2, 3, and 4, Askers chose five questions to pose to the Respondent, out of ten questions presented to them. Percent shown reflects the frequency of the question being chosen out of the set that included all 10 questions in the column.

In Study 1, we calculated the frequencies only out of the Mixed set, which included 5 sensitive and 5 non-sensitive questions, similar to the other studies. In Studies 2–4, the frequencies are calculated across experimental conditions. Sensitivity ratings reflect average scores and standard deviations, rated by a separate sample of participants in Pilot Study B. See [Appendix A](#) for the complete list of variables rated in Pilot Study B.

3. Pilot Study B: Rated sensitivity of questions

In Pilot Study B, we asked a separate panel of participants to rate the sensitivity of questions we use in our main studies. Our goal was to identify 10 sensitive and 10 non-sensitive questions. We selected potentially sensitive questions from Pilot Study A that spanned a diverse set of topics including questions about relationships, income, and beliefs (e.g., “What are your views on abortion?”, “How much is your salary?”). We also generated a list on our own of potentially non-sensitive questions (e.g., “What are your job responsibilities?”, “What do you think about the weather?”; we list these questions in [Table 1](#)). Based on our definition of sensitive questions, we validate the sensitivity of these 20 questions across several features such as how “uncomfortable” and “intrusive” they are. Specifically, we asked 78 MTurkers (43.6% female; $M_{\text{age}} = 35.8$, $SD = 9.1$) to rate the 20 questions along four dimensions: sensitivity, discomfort, awkwardness, and intrusiveness. Participants were not told whether to consider the questions from the perspective of an asker or respondent, but just to evaluate the questions. We also asked participants to rate how frequently the answer could have negative interpersonal consequences, how appropriate it is to talk about the topic, and, to measure the value of the question to potential askers, how much information can be learned from the question.

As we report in [Appendix A](#), participants rated the ten sensitive questions as substantially more sensitive ($M = 4.04$, $SD = 1.04$) than the non-sensitive questions ($M = 1.64$, $SD = 0.95$; $t(77) = 23.34$, $p < .001$). The sensitive questions were also rated to be substantially more intrusive ($M_{\text{Sensitive}} = 4.14$, $SD = 1.09$; $M_{\text{Non-sensitive}} = 1.77$, $SD = 1.07$; $t(77) = 22.59$, $p < .001$), substantially more awkward ($M_{\text{Sensitive}} = 3.98$, $SD = 1.13$; $M_{\text{Non-sensitive}} = 1.59$, $SD = 0.94$; $t(77) = 23.11$, $p < .001$) and substantially more uncomfortable ($M_{\text{Sensitive}} = 3.97$, $SD = 1.14$; $M_{\text{Non-sensitive}} = 1.54$, $SD = 0.95$; $t(77) = 23.25$, $p < .001$). Participants also thought that the sensitive questions were more likely to have negative interpersonal consequences ($M_{\text{Sensitive}} = 3.00$, $SD = 1.01$; $M_{\text{Non-sensitive}} = 1.58$, $SD = 0.85$; $t(77) = 17.73$, $p < .001$), but that the information learned from sensitive questions was more valuable ($M_{\text{Sensitive}} = 3.36$, $SD = 1.02$; $M_{\text{Non-sensitive}} = 2.41$, $SD = 0.97$; $t(77) = 12.23$, p

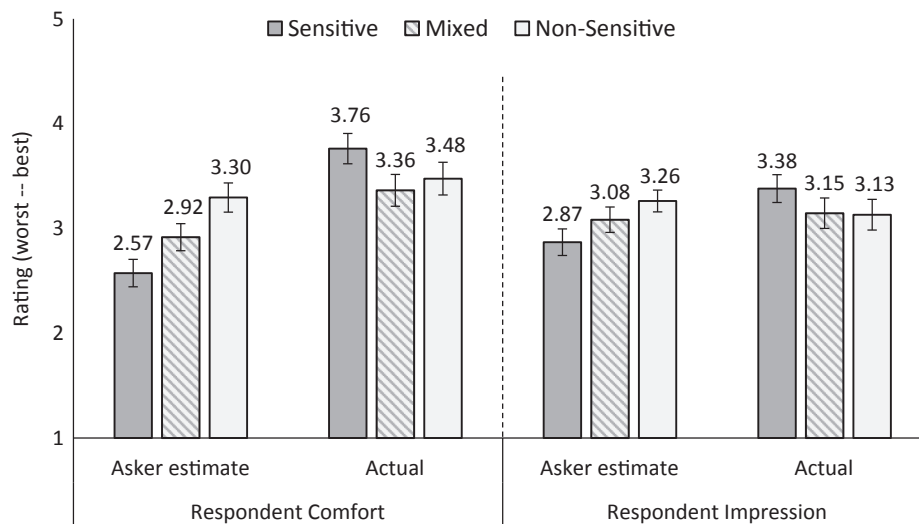


Fig. 2. Askers' estimates and Respondents' actual ratings. (Study 1, N = 360). Note. Error bars represent ± 1 S.E.M.

< .001). Indeed, this trade-off between expectations of negative interpersonal consequences and more highly valued information is central to our prediction that many people ask fewer sensitive questions than they would otherwise like to ask due to relational concerns. Though our definition of sensitive questions does not require that the questions always yield valuable information, we wanted to ensure that the specific items we used in our investigation were deemed by participants to be more valuable than the non-sensitive questions. Thus, we identify a cost to participants for avoiding sensitive questions. Finally, participants thought that the topics of the sensitive questions were less appropriate than the topics of the non-sensitive questions ($M_{\text{Sensitive}} = 1.74$, $SD = 1.05$; $M_{\text{Non-sensitive}} = 3.82$, $SD = 1.12$; $t(77) = -18.71$, $p < .001$). We use these sensitive and non-sensitive questions as stimuli in Studies 1–4; in Table 2 we present the choice frequencies for each of the questions.

4. Study 1: Askers' mental model

Building on our pilot results, we conducted an experiment to investigate Askers' beliefs and Respondents' experiences of sensitive questions. In this study, we paired participants for an online chat and measured both beliefs and responses following the conversation.

4.1. Method

4.1.1. Participants

We recruited 360 MTurkers (51.8% female; $M_{\text{age}} = 38.3$, $SD = 10.9$) who each received a fixed payment of \$0.90.

4.1.2. Procedure

We paired participants and randomly assigned them to either the Asker or the Respondent role. We told both Askers and Respondents that they would enter a chat window. We told Askers that their "job is to ask questions, and the other participant will answer the questions." We told Respondents that "the other participant will ask questions, and your job is to answer the questions." Participants received no information about their counterpart other than the implication that they were also an MTurker.

We assigned Askers to one of three conditions: All Sensitive, All Non-Sensitive, or Mixed. In each condition, the Askers chose five questions from a randomly-ordered set of ten questions (that were rated in Pilot Study B; see Table 1) to ask in the subsequent computerized chat with another participant. The set of ten questions Askers chose from included either 1) All Sensitive: Ten sensitive questions, 2) All Non-Sensitive: Ten non-sensitive questions, or 3) Mixed: Five sensitive and five non-

sensitive questions. We told Respondents that the Asker would ask them at least five questions.

Next, each Asker and Respondent dyad interacted through a real-time computerized chat platform (Molnar, 2019). During the chat, Askers saw the five questions that they had chosen to ask above the chat window. We depict an example of what this screen looks like in Figs. B1 and B2 in Appendix B.

During the text exchange, participants had up to four minutes of unconstrained chat. In all of the chat studies, we constrained the total chat time we gave participants to set clear expectations about the duration of the study. To ensure that Askers actually asked the questions they had selected in each condition, we had two raters code each chat. We find high correspondence between the questions Askers chose to ask during the question selection stage and the questions they actually asked during the interactive chat. Most Askers (67.6%) asked all five of the questions they selected, and 75.3% asked at least four of the five questions they selected. However, several of the Askers (24.7%) asked fewer than four questions, and 25 participants (6.9%) were unable to engage in any conversation. In 24 chats (6.7%), the Respondent left before the Asker asked all five questions¹; yet most Respondents (91.0%) answered every question they received. We resolve some of the technical difficulties we encountered, such as ensuring quicker pairings between conversational partners, in subsequent studies. We do not find differences in the number of questions Askers posed across conditions ($M_{\text{Sensitive}} = 4.21$, $SD = 1.20$; $M_{\text{Mixed}} = 4.15$, $SD = 1.37$; $M_{\text{Non-Sensitive}} = 3.90$, $SD = 1.33$; $F(2,179) = 0.02$, $p = .977$). There were also no differences in Respondents' likelihood of answering all the questions they were asked (Sensitive: 90.9%, Mixed = 89.8%, Non-Sensitive = 92.1%; $F(2,155) = 0.12$, $p = .888$). These results suggest that the question set did not affect the general conversation structure, nor did it affect Askers' and Respondents' compliance with the conversation instructions.

We report results that include all participants. Our pattern of results remains unchanged when we include only participants who asked and answered all five of the questions ($N = 218$) and when we include only participants who asked and answered four or more questions ($N = 250$).

After the chat concluded, both the Asker and the Respondent answered a number of post-chat survey questions. We asked Respondents how comfortable they felt and their impression of their counterpart, and we asked Askers how comfortable they thought their Respondent was feeling and what they thought their Respondent's impression was of them. We report the complete list of survey items in

¹ Excluding these 24 chats, 63.5% of Askers asked all 5 questions.

Appendix C.²

4.2. Results

4.2.1. Askers' question choices in the mixed condition

In the Mixed condition, Askers chose to ask 2.0 sensitive questions and 3.0 non-sensitive questions on average ($SD = 1.50$). If question choice were random, participants would select 2.5 sensitive questions on average. In contrast, we find that askers were averse to asking sensitive questions: 2.0 sensitive questions is significantly lower than the 2.5 predicted by chance: $t(29) = -2.46$, $p = .020$. Only 13.3% of Askers in the Mixed condition chose to ask four or five sensitive questions, whereas 40.0% chose to ask one or zero sensitive questions.

4.2.2. Askers' mental model

Askers believed that Respondents were less comfortable in the Sensitive condition ($M = 2.57$, $SD = 1.02$) than they were in the Non-Sensitive condition ($M = 3.29$, $SD = 1.08$; $t(182) = 3.84$, $p < .001$). Askers also believed that Respondents in the Mixed condition ($M = 2.92$, $SD = 1.00$) were less comfortable than Respondents in the Non-Sensitive condition ($t(182) = 2.01$, $p = .046$), and marginally more comfortable than Respondents in the Sensitive condition ($t(182) = 1.82$, $p = .070$). Note that Askers in the Mixed condition self-selected the number of sensitive questions they asked, so Askers' beliefs about the discomfort of their counterpart may be confounded with their aversion to asking sensitive questions in this condition.

Similarly, Askers in the Sensitive condition thought that Respondents viewed them less favorably ($M = 2.87$, $SD = 0.99$) than did Askers in the Non-Sensitive condition ($M = 3.26$, $SD = 0.81$, $t(182) = 1.82$, $p = .019$). Askers in the Mixed condition ($M = 3.08$, $SD = 0.94$) fell in the middle, but this rating did not differ significantly from either the Sensitive or Non-Sensitive conditions (p 's > 0.20). We present these results in Fig. 2.

4.2.3. Respondents' reactions

Respondents' ratings of comfort did not differ significantly across conditions ($M_{\text{Sensitive}} = 3.76$, $SD = 1.15$; $M_{\text{Mixed}} = 3.36$, $SD = 1.13$; $M_{\text{Non-Sensitive}} = 3.47$, $SD = 1.22$; $F(2,176) = 1.86$, $p = .158$). In addition, Respondents' impressions of Askers did not differ significantly ($M_{\text{Sensitive}} = 3.38$, $SD = 1.05$; $M_{\text{Mixed}} = 3.14$, $SD = 1.08$; $M_{\text{Non-Sensitive}} = 3.13$, $SD = 1.15$; $F(2,176) = 1.01$, $p = .366$).

4.2.4. Askers' accuracy

To test Askers' accuracy, we compared each Asker's prediction of their Respondent's comfort to their matched Respondent's rating. In the following paired tests, we include only 161 Asker-Respondent pairs (322 participants of our 360) in which both participants completed and submitted the survey. Notably, the result pattern and significance holds when we include all participants and conduct non-paired analyses. Overall, Askers believed that Respondents felt significantly less comfortable than Respondents actually felt ($M_{\text{Pred}} = 2.97$, $SD = 1.07$ vs. $M_{\text{Actual}} = 3.65$, $SD = 1.14$; $t(160) = -5.90$, $p < .001$). This difference was also significant within each question set condition (Sensitive: $t(55) = -4.34$, $p < .001$; Mixed: $t(53) = -3.75$, $p < .001$; Non-Sensitive: $t(50) = -2.10$; $p = .041$).

Askers also believed that they made a worse impression on Respondents than they actually did ($M_{\text{Pred}} = 3.09$, $SD = 0.92$ vs. $M_{\text{Actual}} =$

3.37, $SD = 0.99$; $t(160) = -2.84$, $p = .005$). This mis-prediction was largest in the Sensitive condition ($t(55) = -2.12$, $p = .038$), marginally significant in the Non-Sensitive condition ($t(50) = -1.93$, $p = .060$), and not significantly different in the Mixed condition ($t(53) = -0.85$, $p = .399$). There were significant differences between the Sensitive and the Mixed conditions ($B_{\text{Mixed}} = -0.36$, $t = -2.19$, $p = .029$) and between the Sensitive and Non-Sensitive conditions ($B_{\text{Non-Sensitive}} = -0.36$, $t = -2.16$, $p = .032$); the Mixed and Non-Sensitive conditions did not differ ($B_{\text{Mixed.v.Non-Sensitive}} = 0.003$, $t = 0.02$, $p = .986$).

4.2.5. Askers' own discomfort

Askers were similarly comfortable after the conversation across conditions ($M_{\text{Sensitive}} = 3.38$, $SD = 1.32$; $M_{\text{Mixed}} = 3.38$, $SD = 1.13$; $M_{\text{Non-Sensitive}} = 3.49$, $SD = 1.23$; $F(2,182) = 0.26$, $p = .607$), and formed similar impressions of the Respondents ($M_{\text{Sensitive}} = 3.38$, $SD = 1.21$; $M_{\text{Mixed}} = 3.33$, $SD = 1.08$; $M_{\text{Non-Sensitive}} = 3.46$, $SD = 1.22$; $F(2,182) = 0.15$, $p = .700$). There was no effect of the number of sensitive questions chosen in the Mixed condition on either Askers' own comfort or on Askers' impressions of their Respondent counterpart (p 's > 0.51).

4.3. Discussion

We identify a failed mental model with respect to beliefs about conversational partners. Specifically, we find that Askers substantially overestimate how uncomfortable Respondents are when they are asked sensitive questions. Askers also believe that Respondents view them much less favorably than Respondents actually do after Askers have asked Respondents sensitive questions. The larger the number of sensitive questions Askers asked, the more uncomfortable they believed their Respondents to be. In practice, however, Respondents' actual comfort levels were not influenced by the number of sensitive questions they were asked.

Interestingly, Askers themselves do not report being especially uncomfortable asking sensitive questions. That is, Askers may feel comfortable asking sensitive questions, but mis-predict how Respondents will feel when they are asked sensitive questions.

5. Study 2: Asking and answering sensitive questions

In Study 2, we extend our investigation of sensitive questions and failed mental models. In this experiment, we introduce impression management goals for conversational partners, and we observe the types of questions individuals choose to ask and the impressions they believe these questions create. We measure how many sensitive questions Askers chose to ask, Askers' predictions of the impact of their questions on Respondents, and Respondents' evaluations of the Askers and the questions they received. Finally, we also capture the content of conversations and conduct exploratory analyses of these conversations, which we report in the Supplementary Online Materials.

5.1. Method

5.1.1. Participants

We recruited 403 MTurk participants (42.8% female; $M_{\text{age}} = 37.3$, $SD = 10.6$) to engage in a conversation. We paid participants a fixed payment of \$0.60, as well as a bonus payment of up to \$0.50. This bonus payment depended on participants' decisions and their experimental condition.

5.1.2. Procedure

As in Study 1, we paired participants and randomly assigned them to either the Asker role ("your job is to ask questions") or the Respondent role ("your job is to answer questions"). We assigned participants in the Asker role to one of three conditions: 1) *Favorable Impression* condition: We incentivized Askers to make a good impression on the Respondent; 2) *Discomfort* condition: We incentivized Askers to make the Respondent

² For consistency in study procedures across conditions, we had both Askers and Respondents rate their own feeling and impression, and assess their counterpart's feeling and impression. As we preregistered, we focus on the comparisons between Askers' assessments and Respondents' actual ratings. Across our studies, we find that Respondents were often inaccurate in predicting how Askers felt or their impressions, but these results were not always significant and were not preregistered so we report these findings in the Supplementary Online Materials.

as uncomfortable as possible; 3) *Control* condition: We provided no conversational goal. In the Favorable Impression condition, we informed Askers that their bonus payment would depend on how favorable their Respondent's post-conversation rating of them was. In the Discomfort condition, we informed Askers that their bonus payment would increase with their Respondent's post-conversation rating of how uncomfortable they were. In the Control condition, we informed Askers that their bonus payment would depend on a random draw. Regardless of their Asker counterpart's condition, we informed all Respondents that they would earn a bonus payment based upon their Asker counterpart's rating of how much they had learned about the Respondent. We did not provide Respondents with any information about the experimental conditions, and we did not provide participants with any information about their partner prior to the chat.

Askers chose five questions from a “mixed” list of ten questions, which included five sensitive questions and five non-sensitive questions (see Table 1; we listed questions in random order per participant). Next, the Asker and Respondent interacted through the computerized chat platform. For Askers, we displayed the five questions they chose to ask above the chat window (see Appendix B).

As in Study 1, participants had up to four minutes of unconstrained chat. Following the experiment, we had two raters code each chat, and we again find high correspondence between the questions Askers chose to ask in the question selection phase of the experiment and the questions they actually asked in the chat phase of the experiment. Most Askers (73.7%) asked four or five of the five questions they had selected (and 55.9% asked all five of the questions they had selected: Discomfort = 58.2%; Control = 62.1%; Favorable Impression = 49.3%). In 74 chats, the Respondent left the chat before the Asker asked all five questions.³ Notably, the number of questions asked did not differ across conditions ($M_{\text{Discomfort}} = 4.21$, $SD = 1.20$; $M_{\text{Control}} = 4.15$, $SD = 1.37$; $M_{\text{Favorable Impression}} = 3.90$, $SD = 1.33$; $F(2,199) = 1.10$, $p = .336$). Respondents answered on average 86.1% of the questions they were asked, and this did not differ across conditions (Discomfort = 84.9%; Control = 88.9%; Favorable Impression = 84.4%; $F(2,175) = 0.49$, $p = .615$). That is, Askers and Respondents followed the instructions similarly across conditions. We report exploratory post-hoc analyses of the content of these conversations in the Supplementary Online Materials. As we report in the supplement, we found few differences across conditions; for example, we found few differences across conditions with respect to how participants engaged in their conversations, how much participants hesitated, laughed, changed the question phrasing, or asked follow-up questions. In what follows, we report results that include all of the participants. Our pattern of results remains unchanged when we include only participants who asked and answered all five of the questions ($N = 200$) and when we include participants who asked and answered four or more questions ($N = 268$).

After the chat concluded, both the Asker and the Respondent answered a number of post-chat questions (see Appendix C for the full list of questions). As in Study 1, we focus on Respondents' rating of their comfort and their impression of the Asker, and Askers' assessments of how the Respondent felt and what the Respondent's impression of them was. We preregistered this study at AsPredicted.org (<http://aspredicted.org/blind.php?x=h25a38>).

5.2. Results

5.2.1. Askers' question choice

Across conditions, participants asked very different sets of questions, as we expected. As depicted in Fig. 3, Askers in the Discomfort condition

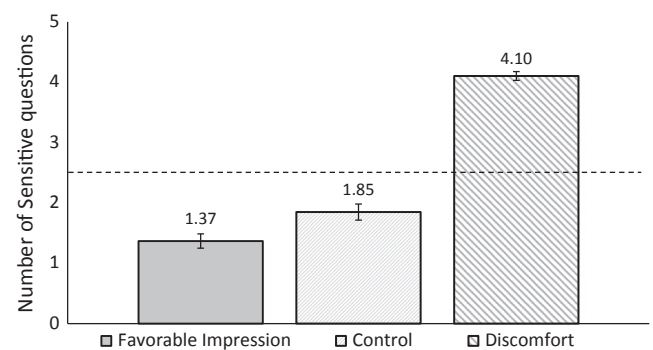


Fig. 3. Askers' question choices (Study 2, $N = 403$). Note. The dashed line represents the number of sensitive questions predicted by chance (2.5). Error bars represent ± 1 S.E.M.

selected an average of 4.10 ($SD = 0.60$) sensitive questions, compared to 1.37 sensitive questions in the Favorable Impression condition ($SD = 0.98$; $t(134) = 19.67$, $p < .001$), and 1.85 sensitive questions in the Control condition ($SD = 1.08$; $t(132) = 14.93$, $p < .001$). The difference between the Favorable Impression and Control condition was also significant ($t(132) = 2.70$, $p = .008$). We observe similar results in non-parametric χ^2 tests (All three conditions: $\chi^2(10) = 158.42$, $p < .001$; Discomfort v. Control: $\chi^2(5) = 95.32$, $p < .001$; Discomfort v. Favorable Impression: $\chi^2(5) = 111.72$, $p < .001$; but note that the difference between the Favorable Impression and Control conditions was non-significant in this test: $\chi^2(5) = 8.51$, $p = .130$).

Moreover, Askers in the Discomfort condition chose significantly more sensitive questions than the 2.5 predicted by chance ($t(67) = 21.98$, $p < .001$), whereas Askers in the Control and Favorable Impression conditions chose fewer sensitive questions than 2.5 (Control: $t(65) = -4.88$, $p < .001$; Favorable Impression: $t(67) = -9.57$, $p < .001$).

5.2.2. Askers' mental model

As depicted in Fig. 4, Askers reported that they believed that Respondents felt less comfortable in the Discomfort condition ($M = 2.00$, $SD = 0.99$) than in the Control condition ($M = 3.00$, $SD = 1.04$; $t(132) = 5.70$, $p < .001$) or the Favorable Impression condition ($M = 3.16$, $SD = 1.15$; $t(134) = 6.29$, $p < .001$). Askers' beliefs about discomfort did not differ between the Control and the Favorable Impression conditions ($p = .395$).

Askers also reported that they believed that Respondents viewed them less favorably in the Discomfort condition ($M = 2.10$, $SD = 0.99$) than they did in the two other conditions ($M_{\text{Control}} = 3.10$, $SD = 0.89$; $t(132) = 6.05$, $p = .006$; $M_{\text{Favorable Impression}} = 3.37$, $SD = 0.93$, $t(134) = 7.66$, $p < .001$). The difference in estimates between the Control and Favorable Impression conditions was marginally significant ($t(132) = 1.76$, $p = .081$).

5.2.3. Respondents' reactions

Even though Askers chose very different questions and estimated that their counterpart felt very differently across conditions, the actual Respondents' ratings of comfort did not differ across conditions ($M_{\text{Discomfort}} = 3.54$, $SD = 1.26$; $M_{\text{Control}} = 3.61$, $SD = 1.36$; $M_{\text{Favorable Impression}} = 3.61$, $SD = 1.05$; $F(2,198) = 0.08$, $p = .920$). Similarly, Respondents' impressions of the Asker did not differ across conditions ($M_{\text{Discomfort}} = 3.42$, $SD = 1.13$; $M_{\text{Control}} = 3.43$, $SD = 1.17$; $M_{\text{Favorable Impression}} = 3.35$, $SD = 1.11$; $F(2,198) = 0.10$, $p = .901$).

5.2.4. Askers' accuracy

As shown in Fig. 4, Askers did not accurately perceive the influence of their questions on their Respondent counterparts. To test this explicitly, we compared each Asker's prediction to their matched

³ Excluding these 74 chats, Askers asked all five questions in 63.4% of the chats, and asked four of the five questions in another 14.8% of the chats. Moreover, a vast majority (92.9%) of the Respondents who did not leave the chat early answered all of the questions that they were asked.

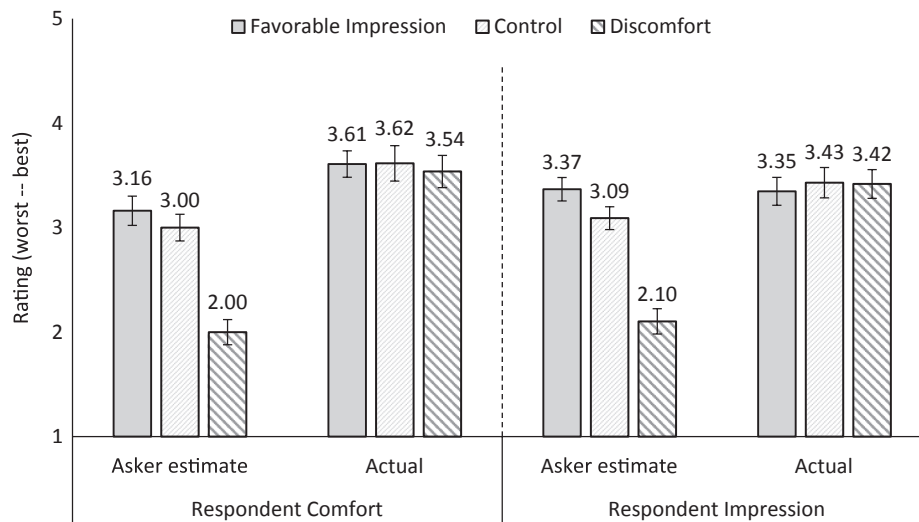


Fig. 4. Askers' estimates and Respondents' actual ratings. (Study 2, $N = 403$). Note. Error bars represent ± 1 S.E.M.

Respondent's reported comfort and impression. As in Study 1, in the following paired analyses we include only the Asker-Respondent pairs in which both participants completed and submitted the survey (362 of our 403 participants; 181 pairs), and we note that the result pattern and significance holds when we include all participants and conduct non-paired analyses.

Askers estimated that their matched Respondents felt worse than the Respondents actually did ($M_{\text{Pred}} = 2.74$, $SD = 1.19$ vs. $M_{\text{Actual}} = 3.66$, $SD = 1.24$; $t(180) = -8.26$, $p < .001$). We observe this mis-prediction in each condition (Discomfort: $t(57) = -6.05$, $p < .001$; Control: $t(58) = -4.03$, $p < .001$; Favorable Impression: $t(63) = -4.27$, $p < .001$). The magnitude of this mis-prediction is largest in the Discomfort condition, and overall increases with the number of sensitive questions Askers posed ($R = 0.15$, $p = .037$).

Similarly, Askers believed that they made a worse impression on Respondents than they actually did ($M_{\text{Pred}} = 2.89$, $SD = 1.10$ vs. $M_{\text{Actual}} = 3.54$, $SD = 1.07$; $t(178) = -6.73$, $p < .001$). Testing this separately by condition, we find that this mis-prediction is significant in the Discomfort condition ($t(55) = -7.05$, $p < .001$) and in the Control condition ($t(58) = -3.56$, $p < .001$), but we do not find a significant difference between Askers' predictions and Respondents' impressions in the Favorable Impression condition ($t(63) = -1.62$, $p = .110$). We regressed Askers' estimates on condition (coded as a three-level variable): Askers' estimates were less accurate in the Discomfort condition than in the Control condition ($B = -0.65$, $t(176) = -2.82$, $p = .005$) or the Favorable Impression condition ($B = -0.96$, $t(176) = -4.24$, $p < .001$). Consistent with our findings for predicted and actual discomfort, the size of the Askers' mis-prediction was correlated with the number of sensitive questions they chose to ask ($R = 0.25$, $p < .001$).

5.2.5. Askers' own discomfort

We find that Askers' comfort was marginally higher in the Favorable Impression condition than it was in the Discomfort condition, but overall, Askers rated their own comfort similarly across the three conditions ($M_{\text{Discomfort}} = 3.16$, $SD = 1.14$; $M_{\text{Control}} = 3.42$, $SD = 1.23$; $M_{\text{Favorable Impression}} = 3.57$, $SD = 1.28$, $F(2,202) = 3.57$, $p = .060$). Askers did not form different impressions of the Respondents across conditions ($M_{\text{Discomfort}} = 3.35$, $SD = 1.01$; $M_{\text{Control}} = 3.67$, $SD = 1.04$; $M_{\text{Favorable Impression}} = 3.54$, $SD = 1.26$, $F(2,202) = 1.00$, $p = .319$).

5.3. Discussion

In this study, we describe conversational partners' beliefs about sensitive questions. Compared to Askers' behavior in the control

condition, an incentive to leave a favorable impression caused Askers to ask fewer sensitive questions, and an incentive to cause their counterpart discomfort led Askers to ask more sensitive questions. After engaging in conversations, Askers assessed the discomfort they had caused their conversational partner and the impression they had made on their conversational partner. We find that Askers believe that the more sensitive questions they had asked, the more discomfort they had caused and the less favorable of an impression they had created. In reality, Respondents' ratings were unaffected by the number of sensitive questions they were asked. That is, Askers overestimated the negative influence that sensitive questions had on Respondents' feelings and impressions. We also find that Askers' own comfort and impressions were not significantly affected by the questions they asked. Taken together, these results suggest that Askers may avoid asking sensitive questions not because of their own discomfort, but because they overestimate the impact their sensitive questions will have on their conversational partner.

6. Study 3: Financial incentives and sensitive questions

Study 3 extends our investigation in two key ways. First, in this study we directly investigate the trade-offs individuals make when choosing whether or not to ask sensitive questions. Though we pre-tested our sensitive questions to identify questions that yield more valuable information than the non-sensitive questions, it is possible that participants in Studies 1 and 2 may have felt that the informational benefit they would receive from asking these questions was small in these settings. To address this concern, we conducted an additional pilot study to assess the value that participants place on the information they could gain from self-generated sensitive questions, and then in Study 3 we make the relative value of asking sensitive questions explicit. In Study 3, we associate financial incentives with each question, but make the size of the financial incentives larger for asking sensitive than for asking non-sensitive questions.

Second, Study 3 extends our investigation to decisions in face-to-face interactions. In Studies 1 and 2, we investigated computer-mediated conversations between strangers. This relatively anonymous setting may have disinhibited individuals (Suler, 2004), whereas in-person and in conversations with friends, individuals may be even more reticent to ask sensitive questions, despite potential benefits to learning the information. In survey research, Tourangeau, Couper, and Steiger (2003) found that respondents were most willing to answer sensitive questions online, rather than in person, and that they were more forthcoming when the question asker was an anonymous stranger than a familiar

friend or acquaintance. The relative anonymity of online settings, however, can also promote rude and potentially offensive behavior, a phenomenon termed “toxic disinhibition” (Suler, 2004). In fact, the absence of eye contact alone can promote both benign (e.g., self-disclosure; Jourard & Friedman, 1970) and toxic disinhibition (Lapidot-Lefler & Barak, 2012). Though we propose that sensitive questions might not actually be as offensive as people believe, merely anticipating that sensitive questions will cause discomfort may prompt individuals to be more willing to ask these questions in online settings than they would in face-to-face settings. That is, if people care more about others’ feelings and what others think of them when engaging in face-to-face interactions than in online interactions, then an expectation that sensitive questions will cause discomfort and harm impressions should further depress the likelihood that individuals ask sensitive questions in face-to-face, rather than in online, settings.

Taken together, in Study 3, we extend our investigation of the aversion conversational partners have to asking sensitive questions to a face-to-face setting, and provide financial incentives for asking sensitive questions.

6.1. Pilot Study

We conducted a pilot study ($N = 80$ MTurk participants; 35.0% female; $M_{\text{age}} = 34.6$, $SD = 9.3$; <http://aspredicted.org/blind.php?x=2zw9q9>) to assess the perceived value of asking sensitive questions. As in Pilot Study A, participants wrote three pieces of information that they “would like to ask, but would feel uncomfortable to ask directly.” For each question or topic listed, participants indicated how much they would pay for the information (the answer to the question) if they could learn it without having to ask. Participants also rated how willing they would be to ask these questions in two contexts: if asking would not make their coworker uncomfortable, and if asking would not change their coworker’s impression of them (both rated from 1: Much less willing, to 7: Much more willing). We report additional measures and results in the Supplementary Online Materials.

Participants reported that they were willing to pay an average of \$12 for the answers to their sensitive questions ($SD = 43.8$; significantly higher than zero: $t(239) = 4.25$, $p < .001$). However, participants also stated that they were more willing to ask sensitive questions when they imagined that the question would not cause discomfort for their counterpart ($M = 4.84$, $SD = 1.43$, significantly different from “4: No change”, $t(239) = 9.12$, $p < .001$) and when it would not change the coworker’s impression of them ($M = 4.98$ on a scale from 1 to 7, $SD = 1.37$, significantly different from “4: No change”, $t(239) = 11.09$, $p < .001$). This provides additional evidence that although askers value the information gleaned from sensitive questions, their hesitance to ask these questions may be due to concerns they have about relational and impression management costs.

6.2. Main study: Method

In this study, we make the benefits of asking sensitive questions explicit by introducing a larger monetary incentive to ask sensitive questions relative to non-sensitive questions.

6.2.1. Participants

We recruited 215 participants from a university behavioral lab pool (67.4% female; $M_{\text{age}} = 22.6$, $SD = 7.7$). Participants were paid a \$5 flat amount for the study, and could earn an additional amount between \$0.40 and \$1.80, depending on their decisions.

6.2.2. Procedure

We instructed participants that they would be the Asker in a conversation and would be paired with a Respondent. In actuality, in this study we assigned all participants to be Askers. We then randomly assigned participants to one of two conditions that varied the

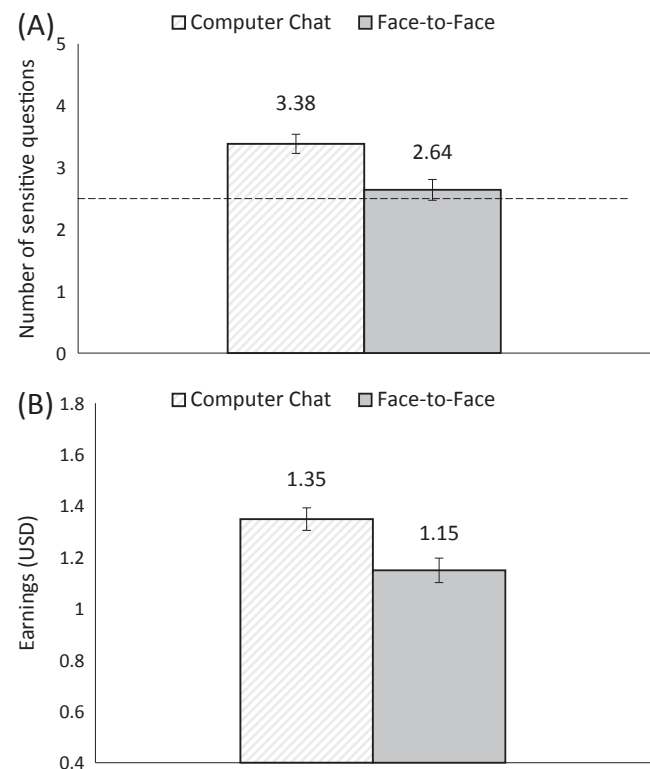


Fig. 5. Askers’ choices and outcomes in the Computer and Face-to-Face conditions. Panel A) Number of sensitive questions chosen; Panel B) Amount earned (Study 3, $N = 215$). *Note.* The dashed line represents the number of sensitive questions predicted by chance (2.5). Participants’ possible earnings ranged from \$0.40 to 1.80. Error bars represent ± 1 S.E.M.

anticipated mode of communication: In the *Computer* condition, we told participants they would interact with their counterpart through a computerized chat platform. In the *Face-to-Face* condition, we told participants they would interact with another participant in person. Due to limitations of sample size and our focus on the selection of questions, we ended the study before participants actually chatted with a counterpart.

In the first stage of the study, we asked participants to choose the questions they would ask their counterpart. We presented participants with the same list of ten questions we used in Study 2 (in randomized order). However, next to each question, we also listed a payoff that would be added to the participant’s final payment for choosing to ask that question (see Table 1). Sensitive questions were valued at either \$0.30 or \$0.40, and non-sensitive questions were valued at either \$0.05 or \$0.10.⁴ The average bonus payment participants earned, based on their question choices, was \$1.25 (the range was \$0.40–\$1.80; $SD = 0.48$).

After Askers chose five questions (but before any actual interaction with a counterpart), they predicted their counterpart’s impression of them after the conversation, as well as how the counterpart would feel after the conversation. We present the full list of our measures in Appendix C.

Finally, we told participants that due to time constraints they would

⁴ We created variation around the pricing of the questions to make the dichotomous distinction between sensitive and non-sensitive questions less salient; we allocated a higher or a lower price to the questions at random, but the prices were the same for all participants. There was no difference in the likelihood of choosing sensitive questions earning \$0.30 versus \$0.40, yet Askers were more likely to choose questions earning \$0.10 than those earning \$0.05.

not actually interact with their counterpart, but that they would be paid according to the questions they chose. Participants answered demographic questions and received a bonus payment based upon the questions they had selected.

6.3. Results

6.3.1. Askers' choices and earnings

As depicted in Fig. 5, Askers in the Computer-mediated conversation condition selected 3.38 (SD = 1.59) sensitive questions out of the five possible sensitive questions they could ask, compared to 2.64 (SD = 1.75) sensitive questions in the Face-to-Face conversation condition ($t(213) = 3.26, p = .001$; $\chi^2(5) = 11.89, p = .036$). In the Computer-mediated conversation condition, 38.3% of participants selected all five sensitive questions and 3.7% selected no sensitive questions; in the Face-to-Face conversation condition, 23.1% of participants selected all five sensitive questions, and 13.0% selected no sensitive questions. Notably, Askers chose more sensitive questions than predicted by chance (i.e., >2.5) in the Computer condition ($t(106) = 5.73, p < .001$) but not in the Face-to-Face condition ($t(107) = 0.82, p = .412$). We report the question choice frequencies in Table 2.

Correspondingly, Askers earned more in the Computer condition ($M = \$1.35, SD = 0.45$) than they did in the Face-to-Face condition ($M = \$1.15, SD = 0.49$; $t(213) = 3.09, p = .002$). That is, Askers in the Face-to-Face condition earned 14% less than Askers in the Computer condition, because they chose to ask fewer sensitive questions. However, by selecting an average of only 3.38 sensitive questions, even Askers in the Computer condition earned, on average, 25% less than they could have earned had they chosen to ask all five sensitive questions.

6.3.2. Askers' mental model

We regressed Askers' estimates on condition, controlling for the number of sensitive questions they chose. Across both conditions, Askers who selected more sensitive questions predicted that they would make Respondents feel less comfortable ($B = -0.40, t(211) = -7.47, p < .001$). There was no impact of condition on predictions of Respondents' comfort ($t(211) = -0.99, p = .324$).

In addition, Askers who chose more sensitive questions thought that Respondents would view them less favorably ($B = -0.29, t(211) = -6.30, p < .001$). Again, there was no difference between the Face-to-Face and Computer conditions ($t(211) = -1.36, p = .174$).

6.3.3. Askers' own discomfort

Askers who selected more sensitive questions predicted that they would feel less comfortable ($B = -0.20, t(211) = -2.87, p = .005$). There was no difference between the Face-to-Face and Computer conditions in predictions of one's own comfort ($t(211) = -0.47, p = .639$).

6.4. Discussion

In Study 3, we demonstrate that even when explicitly incentivized to do so, individuals often refrain from asking some of the sensitive questions that they could ask, both when expecting to communicate face-to-face and when expecting to communicate via computer. In this study, participants earned less money because they chose to ask fewer sensitive questions than they could have asked. Extending our findings from Studies 1 and 2, we demonstrate that before the conversation occurs, Askers predict that sensitive questions will negatively impact Respondents' feelings and the impressions that Respondents will form about Askers. Although the conversation medium did not influence Askers' predictions about Respondents, Askers were more willing to ask sensitive questions via computer than they were when they expected to interact with their counterpart in person. In Study 4, we further our investigation of sensitive questions with actual face-to-face conversations.

7. Study 4: Face-to-Face conversations

In Study 4, we build on our findings in three ways. First, participants in this study engaged in face-to-face conversations, rather than via computer as they did in Studies 1 and 2. Second, we explore whether a study design that shifts Respondents' attributions for the source of questions increases the willingness to ask sensitive questions. Third, we asked Askers to both predict Respondents' post-chat feeling and impression before the conversation occurs, and to estimate Respondents' feeling and impression after the conversation occurs. These data enable us to investigate how Askers predict and revise their assessments of their counterpart's conversational experience.

7.1. Method

7.1.1. Participants

We recruited 254 participants from a university behavioral lab pool (72.4% female; $M_{\text{age}} = 22.9, SD = 7.7$) to participate in a study on conversation. Participants were paid a \$5 flat amount for the study.

7.1.2. Procedure

We randomly assigned participants to dyads and to the Asker or Respondent role within each dyad. Participants did not know with whom they were paired until they interacted in the conversation.⁵

We randomly assigned dyads to one of two conditions. In the "Responsibility" condition, we informed Respondents that the Asker chooses the questions that they will ask the Respondent. In the "No Responsibility" condition, we employed mild deception and told Respondents that the computer would choose the questions that the Asker will ask the Respondent. The Respondents did not learn anything about the menu of questions available to Askers. In both conditions, the Asker saw the Respondent's instructions. That is, the Asker knew whether or not the questions they asked were likely to be attributed to choices they made or to choices the computer made. In actuality, in both conditions the Askers chose the five questions they would ask from the same mixed list of ten questions we used in our prior studies (see Table 1; question order was randomized). In this study, Askers copied the five questions they chose to ask on a sheet of paper. Then, Askers indicated how important it was to them that the Respondent would feel comfortable, and how important it was to them to make a good impression on the Respondent. In a final pre-conversation set of questions, similar to those we used in Studies 1–3, Askers then predicted how they and the Respondent would feel after the conversation, and predicted the Respondent's impression of them.

Next, we paired the Asker and Respondent in the behavioral lab and asked them to have a five-minute face-to-face conversation. During this conversation, Askers could refer to the paper that listed their five chosen questions. We recorded each conversation with voice recorders. The recorded conversations included, on average, 4.61 questions (SD = 1.39; 88.5% of conversations included all five questions), and 4.54 answers (SD = 1.34).⁶

After the chat concluded, both the Asker and the Respondent answered a number of post-chat questions. Respondents rated their comfort and their impression of their counterpart, and Askers indicated what they thought their Respondent's comfort level was and what they thought the Respondent's impression of them was. We report the complete list of questions we asked in Appendix C. This study was

⁵ In nine experimental sessions, we had an odd number of participants. In these sessions, we assigned one participant to the Asker role and these participants only completed pre-conversation measures.

⁶ We faced technical difficulties in matching the recordings to the experimental condition, because many of our voice recordings unexpectedly did not include participants' ID numbers. Thus, we know the average of questions asked and answered across condition but not in each condition.

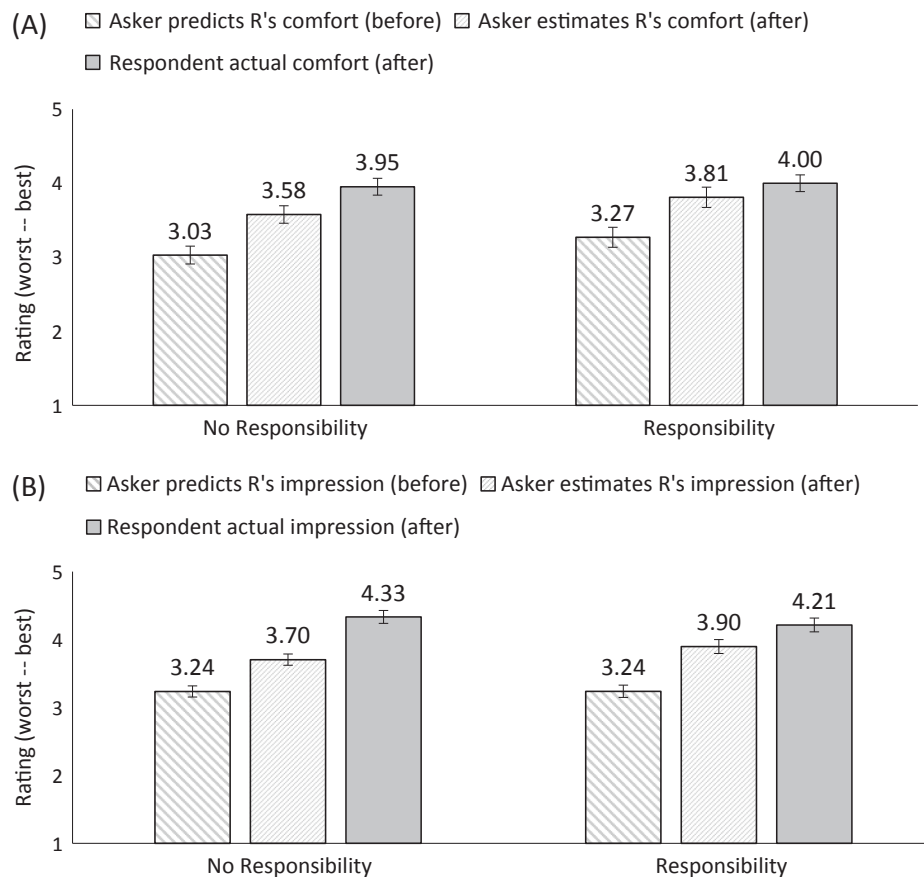


Fig. 6. Askers' predictions before the face-to-face conversation, Askers' estimates after the face-to-face conversation, and Respondents' actual reactions to the conversation (Study 4, $N = 254$). Panel A) Respondents' comfort level after the conversation. Panel B) Respondents' impression of the Askers. *Note.* Error bars represent ± 1 S.E.M.

preregistered on AsPredicted.org (<https://aspredicted.org/blind.php?x=cx8hv2>).

7.2. Results

7.2.1. Askers' question choice

Contrary to our pre-registered predictions, the average number of sensitive questions Askers chose in the Responsibility condition ($M = 1.24$, $SD = 1.29$) was not significantly different from the number of sensitive questions Askers chose in the No Responsibility condition ($M = 1.57$, $SD = 1.31$, $t(129) = 1.47$, $p = .147$). In both conditions, the number of sensitive questions was lower than predicted by chance (Responsibility: $t(62) = -7.75$, $p < .001$; No Responsibility: $t(67) = -5.84$, $p < .001$) and the distribution did not differ between conditions ($\chi^2(5) = 8.77$, $p = .119$).

However, as we expected and in line with the findings in our previous studies, the number of sensitive questions Askers chose to ask was negatively correlated with Askers' impression management concerns ($R = -0.31$, $p < .001$), and with Askers' concern about the Respondent's comfort ($R = -0.46$, $p < .001$). We find similar patterns across both responsibility conditions (p 's > 0.66). We report the question choice frequencies in Table 2.

7.2.2. Askers' pre-conversation and post-conversation expectations

We regressed Askers' estimates on condition, controlling for the number of sensitive questions they chose to ask and the interaction with condition. Before the chat, Askers who chose to ask more sensitive questions predicted that their Respondent counterparts would feel less comfortable ($B = -0.31$, $t(127) = -4.79$, $p < .001$) and would view

them less favorably ($B = -0.18$, $t(127) = -4.09$, $p < .001$). The responsibility condition did not affect either prediction (Comfort: $B = 0.14$, $t(127) = 0.81$, $p = .419$; Impression: $B = -0.06$, $t(127) = -0.50$, $p = .618$).⁷

After the chat, Askers' estimates of the Respondents' impression of them depended on the Responsibility $\times$ Sensitive Questions interaction ($B = -0.35$, $t(127) = -2.59$, $p = .011$). Simple-effect tests show that a greater number of sensitive questions harmed the expected impression in the Responsibility condition ($B = -0.28$, $t(56) = -2.66$, $p = .010$) but not in the No Responsibility condition ($B = 0.07$, $t(62) = 0.81$, $p = .422$). That is, Askers who asked more sensitive questions in the No Responsibility condition did not expect those questions to harm Respondents' impressions of them, whereas Askers who asked a similar number of sensitive questions in the Responsibility condition did expect the questions they asked to harm the impression they made. However, estimates of Respondents' feelings after the chat did not vary by responsibility condition or the number of sensitive questions Askers asked (all regression p 's > 0.24).

7.2.3. Respondents' pre-conversation and post-conversation expectations

Prior to the conversation, Respondents thought they would be similarly comfortable across the two responsibility conditions ($M_{\text{Responsibility}} = 3.07$, $SD = 0.87$; $M_{\text{No Responsibility}} = 3.20$, $SD = 0.94$; $t(121) = -0.82$, $p = .411$). After the chat, Respondents who were asked more

⁷ When we do not control for the number of sensitive questions asked, the responsibility condition still does not significantly affect pre-conversation predictions (Comfort: $B = 0.24$, $t(129) = 1.34$, $p = .183$; Impression: $B = 0.003$, $t(129) = 0.02$, $p = .982$).

sensitive questions felt marginally less comfortable ($B = -0.16$, $t(113) = -1.85$, $p = .068$) and perceived the Asker marginally less favorably ($B = -0.14$, $t(113) = -1.89$, $p = .061$), but the responsibility condition did not affect Respondents' comfort or impression, and the responsibility condition did not interact with the number of sensitive questions asked to predict comfort or impressions (all p 's > 0.40).

After the conversation, Respondents felt significantly more comfortable than they predicted ($M_{\text{Pred}} = 3.14$, $SD = 0.91$; $M_{\text{Actual}} = 3.95$, $SD = 0.93$; Repeated Measures $F(1,114) = 53.56$, $p < .001$). This gap between prediction and actual feeling was not affected by the responsibility condition (Repeated Measures $F(1,114) = 0.11$, $p = .738$).

7.2.4. Askers' accuracy before and after conversation

As we show in Fig. 6, Askers did not accurately estimate their questions' influence on Respondents in either condition. As in Studies 1 and 2, we compared each Asker's prediction of their Respondent counterpart's comfort and impression to their Respondent's actual ratings. We find that before the conversation, Askers' predictions were very inaccurate in both conditions, both for predicted comfort ($M_{\text{Pred}} = 3.12$, $SD = 1.05$ vs. $M_{\text{Actual}} = 3.97$, $SD = 0.92$; Repeated Measures $F(1,108) = 31.94$, $p < .001$, controlling for number of sensitive questions asked) and for Respondents' impressions ($M_{\text{Pred}} = 3.20$, $SD = 0.70$ vs. $M_{\text{Actual}} = 4.28$, $SD = 0.79$; Repeated Measures $F(1,108) = 41.13$, $p < .001$). These accuracy gaps do not differ by responsibility condition (both p 's > 0.211).

As noted above, Askers' assessments after the conversation were less extreme than their pre-conversation predictions. As a result, they were closer to Respondents' actual reactions. Even so, Askers' assessments of their Respondent counterparts' reactions were still far from accurate. Askers overestimated the impact of asking sensitive questions even after the conversation for both comfort ($F(1,116) = 9.26$, $p = .003$) and negative impressions ($F(1,116) = 24.09$, $p < .001$). The gap in assessing comfort is similar across conditions ($F(1,116) = 2.51$, $p = .116$), but the gap in assessing impression is smaller in the Responsibility condition ($F(1,116) = 4.07$, $p = .046$).

7.2.5. Askers' own discomfort

Before engaging in the conversation, Askers who chose more sensitive questions predicted that they would be marginally less comfortable ($p = .061$), yet the number of sensitive questions did not affect Askers' rated comfort after the conversation ($p = .362$). By contrast, Responsibility condition did not affect Askers' predicted comfort ($p = .969$), though after the conversation Askers were more comfortable in the Responsibility condition ($M_{\text{Responsibility}} = 4.28$, $SD = 0.81$; $M_{\text{No Responsibility}} = 3.92$, $SD = 1.00$; $t(120) = 2.14$, $p = .035$).

7.3. Discussion

In this study, we again find that Askers are averse to asking sensitive questions, and they appear to be especially averse to asking sensitive questions in face-to-face conversations. Askers in this study chose fewer than two sensitive questions (out of five) for their conversations, across both conditions. The choices Askers made about asking sensitive questions were correlated with both their impression management concerns and their concerns for the Respondents' comfort.

Contrary to our pre-registered expectations about the impact of responsibility on Askers' choices, Askers avoided asking sensitive questions even when they knew that Respondents could attribute the choice of questions to an external source. If Askers avoid asking sensitive questions solely due to impression management concerns, they should have been more likely to ask sensitive questions when there was an external attribution for the questions. However, if Askers follow a heuristic to avoid asking sensitive questions, regardless of the attribution, they may avoid asking sensitive questions even in contexts when the benefits outweigh the costs.

The ability of Askers in the No Responsibility condition to make an external attribution for the questions makes this study a particularly

conservative test of Askers' aversion to asking sensitive questions, as well as of their ability to predict how Respondents might feel. If the primary reason Respondents are not offended by sensitive questions across our studies is because they attribute the questions to the experimenter, the No Responsibility condition should make that fact (and the attribution for questions) apparent to both Askers and Respondents.

Instead, as in our prior studies, we find that Askers suffer from a failed mental model about Respondents' reactions to sensitive questions. Specifically, Askers overestimated the impact of asking sensitive questions on Respondents' feelings and impressions, both prior to the conversation and after conversing with their partner – and we document this bias across both responsibility conditions. Although experiencing the conversation improved Askers' accuracy, even after the conversation Askers significantly overestimated the negative impact of asking sensitive questions on Respondents.

8. Study 5: Friends versus Strangers

In Study 5, we contrast conversations between friends with conversations between strangers. In Studies 1–4, participants were paired with conversational partners they did not know. This preserves experimental control. However, in many important contexts individuals might consider asking a sensitive question of someone they know. Individuals tend to be more accurate in predicting or inferring their friends' thoughts and emotions, compared to those of strangers (e.g., Stinson & Ickes, 1992; Thomas & Fletcher, 2003). In addition, in Study 4 we found that Askers become somewhat more accurate in their assessments of Respondents' reactions to sensitive questions following a conversation. Thus, we expect that familiarity with conversational counterparts will make individuals more accurate in forecasting the consequences of asking sensitive questions.

8.1. Pilot study

We first conducted a pilot study ($N = 81$ MTurk participants; 25.9% female; $M_{\text{age}} = 35.7$, $SD = 9.7$) to assess how sensitive questions are perceived in conversations between friends versus strangers. We presented each participant with a new set of ten questions, one at a time, in randomized order; five of the questions involved sensitive topics, and five involved non-sensitive topics. We generated these questions for this study by again using participants' self-generated topics from Pilot A, and we list these questions in Appendix A Table A3 (see Supplementary Online Materials for full pilot study details).

As in Pilot Study B, participants rated the perceived sensitivity, intrusiveness, awkwardness, and discomfort of each question (Cronbach's $\alpha = 0.95$). As expected, the five questions that we identified as "sensitive" were rated as more sensitive than the five non-sensitive questions ($M = 3.61$, $SD = 0.10$ vs. $M = 1.89$, $SD = 0.13$; $t(80) = 10.79$, $p < .001$). Consistent with our preregistration (<http://as.predicted.org/blind.php?x=8sq6cw>), we focus on how participants rated these five sensitive questions depending on the conversation partner: these five questions were rated as less sensitive in a conversation between friends ($M = 3.26$, $SD = 0.83$) than in a conversation between strangers ($M = 3.95$, $SD = 0.83$; $t(79) = -3.88$, $p < .001$). We used these five new sensitive questions in Study 5.

8.2. Main study: Method

This study extends our investigation in three key ways. First, we assess differences in Askers' mental model of the impact of asking sensitive questions when Askers have a prior relationship with the Respondent compared to when the conversation partner is a stranger. Second, in contrast to our prior studies, the conversation between the Asker and Respondent involves five predetermined sensitive questions. Thus, the questions were constant across participants, eliminating any question selection effects. Third, to boost the external validity of our findings, we used a new set of sensitive questions.

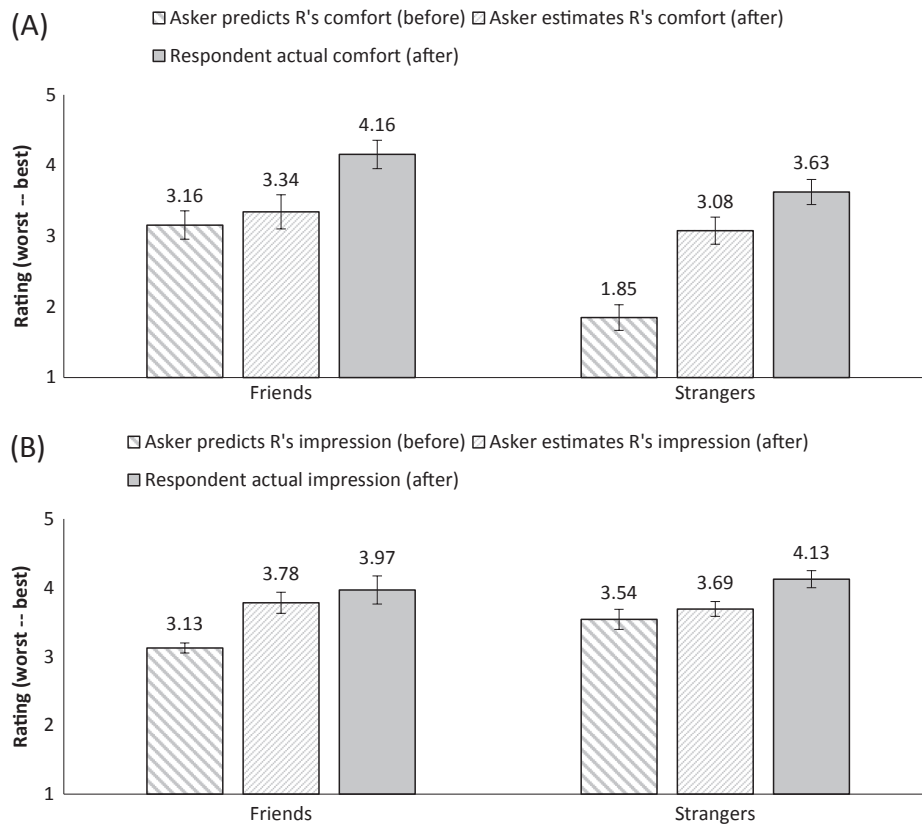


Fig. 7. Askers' predictions before the face-to-face conversation with their friend or with a stranger, Askers' estimates after the face-to-face conversation, and Respondents' actual reactions to the conversation (Study 5, $N = 112$). Panel (A) Respondents' comfort level after the conversation. Panel (B) Respondents' impression of the Askers. *Note.* Error bars represent ± 1 S.E.M.

As in Study 4, participants communicated face-to-face. After being randomly assigned to converse with either a friend or with a stranger, we instructed Askers to assess the impact of the conversation on the Respondents' feelings and impressions both before the conversation and after the conversation.

8.2.1. Participants

We recruited 114 student participants from a university behavioral lab pool (57.9% female; $M_{\text{age}} = 19.2$, $SD = 1.5$) to participate in a study on conversation. We paid participants a \$5 flat amount for the study. In the recruiting ad, we asked participants to come with a friend to the lab, and we had 57 friend pairs attend our sessions. Due to a technical error, two paired participants were both assigned the same role, so we excluded them from the analyses. We report the data of 112 participants (57.1% female, $M_{\text{age}} = 19.2$, $SD = 1.5$).

8.2.2. Procedure

We randomly assigned participants within each friend-dyad to the Asker or the Respondent role. We had two between-participant conditions that pertained to the conversation: In the "Friends" condition, we paired participants with the friend with whom they came to the lab. In the "Strangers" condition, we paired participants with another randomly chosen participant (i.e., someone else's friend, not the friend with whom they came to the lab). Participants in the "Stranger" condition did not know with whom they were paired until the conversation started.

In both conditions we provided Askers with five questions they were to ask their counterparts. These questions were the five sensitive questions we piloted for this study (see Appendix A Table A3). We randomized the question order across participants. Askers copied these five questions to a sheet of paper. As in our prior studies, Askers predicted how they and the Respondent would feel after the conversation, and

predicted how the conversation would change the Respondent's impression of them (on a 5-point scale from Much worse to Much better). Participants also indicated how well they knew their counterpart, how important it was to them that the Respondent would feel comfortable, and how important it was that they make a good impression on the Respondent.

Next, we paired the Askers and Respondents for a four-minute face-to-face conversation. We recorded each conversation. During the conversation, Askers could refer to the paper that listed the five questions.

After the chat concluded, both the Asker and the Respondent answered post-chat questions as in our prior studies. Respondents rated their comfort and their impression of their counterpart, and Askers indicated what they thought was their Respondent's comfort level and what was their Respondent's impression of them. We report the complete list of questions we asked in Appendix C.

Finally, to better understand the content of the conversation itself, we conducted exploratory, pre-registered analyses of the Askers' and Respondents' behaviors during the conversation via professional transcriptions of conversation audio recordings, which we describe in the Supplementary Online Materials. This study was preregistered at AsPredicted.org (<http://aspredicted.org/blind.php?x=k6am9k>).⁸

8.3. Results

8.3.1. Askers' pre-conversation and post-conversation expectations

Before the conversation, Askers in the Strangers condition predicted that their Respondent counterparts would feel less comfortable ($M =$

⁸ We preregistered the number of sessions, but we expected a higher participant turnout than we experienced.

1.79, $SD = 0.83$) than Askers in the Friends condition ($M = 3.16$, $SD = 1.14$; $t(54) = -4.95$, $p < .001$). Askers paired with strangers also thought that the conversation would have a more negative effect on their counterpart's impression of them ($M_{\text{Strangers}} = 2.67$, $SD = 0.56$; $M_{\text{Friends}} = 3.13$, $SD = 0.34$; $t(54) = -3.79$, $p < .001$).

After the conversation, Askers' estimates of the Respondents' comfort were not significantly different between the Strangers and Friends conditions ($M_{\text{Strangers}} = 3.00$, $SD = 0.98$; $M_{\text{Friends}} = 3.34$, $SD = 1.36$; $t(54) = -1.05$, $p = .298$). Askers' post-chat estimates of the Respondents' impressions of them also did not differ between conditions ($M_{\text{Strangers}} = 3.67$, $SD = 0.56$; $M_{\text{Friends}} = 3.78$, $SD = 0.87$; $t(54) = -0.56$, $p = .576$). Notably, across both conditions, Askers' assessments after the conversation were less negative than their pre-conversation predictions of Respondents' comfort (Repeated Measures $F(1,54) = 15.88$, $p < .001$). This post-conversation change was more prominent in the Strangers condition than it was in the Friends condition (Repeated Measures $F(1,54) = 8.50$, $p < .001$). Planned contrasts revealed that the difference between pre-conversation predictions and post-conversation assessments was significant in the Strangers condition ($t(25) = 4.81$, $p < .001$), but not significant in the Friends condition ($t(31) = 0.81$, $p = .422$). That is, the chat changed Askers' perceptions of Stranger-Respondents' comfort, but not of Askers' perceptions of their Friend-Respondents' comfort.

In both conditions, after the conversation, Askers thought that Respondents' impressions of them would be more favorable than they had predicted before the chat (Repeated Measures $F(1,54) = 49.29$, $p < .001$), and this change did not differ between the Strangers and Friends conditions (Repeated Measures $F(1,54) = 2.12$, $p = .151$). Planned contrasts showed that the pre–post-conversation difference in perceived impression was indeed similar across the two conditions (Strangers: $t(25) = 6.85$, $p < .001$; Friends: $t(31) = 3.96$, $p < .001$). We present these data in Fig. 7.

8.3.2. Respondents' pre-conversation and post-conversation reactions

Prior to the conversation, Respondents thought they would be significantly less comfortable in the Strangers condition ($M_{\text{Strangers}} = 3.21$, $SD = 0.83$; $M_{\text{Friends}} = 4.37$, $SD = 0.94$; $t(54) = 4.82$, $p < .001$). After the conversation, Respondents in the Strangers condition were marginally less comfortable ($M_{\text{Strangers}} = 3.63$, $SD = 0.87$; $M_{\text{Friends}} = 4.16$, $SD = 1.14$; $t(54) = 1.90$, $p = .063$). Respondents in both conditions had similar impressions of their Asker ($M_{\text{Strangers}} = 4.13$, $SD = 0.61$; $M_{\text{Friends}} = 3.97$, $SD = 1.15$; $t(54) = -0.60$, $p = .548$).

8.3.3. Askers' accuracy before and after conversation

As we depict in Fig. 7, Askers did not accurately assess the influence of asking sensitive questions on Respondents. As in previous studies, we compared each Asker's prediction of the Respondent's comfort and impression to their Respondent's actual ratings. We find that before the conversation, Askers' predictions were very inaccurate: Askers underestimated Respondents' comfort in both conditions (Repeated Measures $F(1,54) = 51.55$, $p < .001$), but more so in the Strangers condition (Repeated Measures $F(1,54) = 4.46$, $p = .039$). Askers also thought Respondents would form more negative impressions than Respondents actually did (Repeated Measures $F(1,54) = 57.57$, $p < .001$), and again the gap was larger in the Strangers condition (Repeated Measures $F(1,54) = 4.10$, $p = .048$).

After the conversation, though Askers' assessments were closer to Respondents' actual reactions, they were still inaccurate. Askers overestimated the impact of asking sensitive questions on their matched Respondent's comfort in both conditions (Repeated Measures $F(1,54) = 12.29$, $p < .001$); there was no interaction with condition (Repeated Measures $F(1,54) = 0.21$, $p = .649$). Askers' post-conversation assessments of the Respondents' impression of them were marginally lower than Respondents' actual impression (Repeated Measures $F(1,54) = 3.64$, $p = .062$), and there was no interaction by condition (Repeated Measures $F(1,54) = 0.64$, $p = .427$).

8.4. Discussion

In this study, all Askers posed a common set of sensitive questions, conversing face-to-face with either a friend or a stranger. As in our prior studies, Askers suffer from a failed mental model: They overestimate the negative impact of the conversation on Respondents' discomfort and impressions. Compared to being paired with a stranger, Askers paired with a friend made estimates that were closer to their Respondent-counterpart's actual experience. That is, a prior relationship with a conversational partner improved accuracy, but even so, Askers significantly overestimated the harmful effects of asking sensitive questions. Whether talking with a friend or with a new acquaintance, people do not mind answering sensitive questions nearly as much as those contemplating asking the sensitive questions anticipate.

9. General discussion

We document a robust aversion to asking sensitive questions. This aversion may not only be economically costly (Study 3), but may also reflect a failed mental model of the relational impact of asking sensitive questions on respondents. Across our studies, we demonstrate that individuals both mis-forecast in prospect and overestimate in hindsight the interpersonal costs of asking sensitive questions. This is true in both face-to-face and computer-mediated communication, and it is true in conversations with strangers and in conversations with friends. Question askers believe that asking sensitive questions will cause greater discomfort to the respondent, and harm the respondent's impression of them more than they actually do. Contrary to askers' beliefs, across our studies we find that asking sensitive questions (compared to asking non-sensitive questions) caused respondents surprisingly little discomfort and hardly influenced their impressions of the question asker.

Correcting this failed mental model is likely to be difficult for two reasons. First, individuals are unlikely to learn that sensitive questions would cause less discomfort and less impression management harm than they expect, because question askers are so highly averse to asking sensitive questions in the first place. Second, even when individuals do ask sensitive questions, they may fail to sufficiently update their mistaken beliefs. Across our studies, we find evidence for both of these accounts, and we postulate that the aversion to asking sensitive questions that we document may be both insidious and persistent.

9.1. Contributions & implications

Our findings make several important theoretical contributions. First, we advance our understanding of conversations. Asking questions is fundamental to the information exchange process, and we document the important and dysfunctional role that impression management concerns and fear of causing a conversational partner discomfort can play in limiting the questions people ask and the broader exchange of information.

Second, we advance our understanding of a failed mental model in conversations. Before asking sensitive questions, individuals anticipated causing discomfort and impression management harm. Even after engaging in a conversation, question-askers' assessments of their counterpart's discomfort and impressions were strikingly different from their counterpart's actual discomfort and impressions. These findings suggest that conversational partners may be "tone deaf" to their counterpart's experience and systematically fail to comprehend their counterpart's emotional experience.

Third, our findings challenge decades of conversation and etiquette advice. We do not recommend abandoning manners altogether, but we do encourage scholars to challenge and investigate long-held beliefs about the value of different etiquette rules.

Our findings also inform a number of practical prescriptions. Most importantly, we encourage conversational partners to be more willing to ask sensitive questions that could yield valuable information. For example, knowing how much a colleague pays in rent could guide an

individual's housing search, and knowing how much a colleague earns could inform a negotiation with the boss. Our findings suggest that individuals avoid asking these types of questions because they mistakenly fear that asking these questions would cause more discomfort and harm impression management to a far greater degree than they actually do. Instead of avoiding sensitive questions that could yield valuable information, we exhort individuals to go ahead and ask!

9.2. Limitations & future directions

Across our studies, we document a significant aversion to asking sensitive questions and a robust misperception of the harmful effects of asking sensitive questions. Our investigation, however, should be extended in several ways to explore additional moderators and boundary conditions. For example, in our studies we largely focused on conversations between new acquaintances; in Study 5 we examined the impact of sensitive questions among friends. Future work should build on our investigation to explore how asking different types of sensitive questions influences different types of relationships. For example, asking a co-worker about their past drug use may be very different from asking a relational partner or a parent the same question. Future work should also explore how impression management concerns influence the use of questions within a hierarchy. In some cases, people may be even more reticent to ask sensitive questions than what we document in our studies. We call for future work to explore relational closeness, power, and status as potential moderators of our findings.

In addition, we call for future work to explore boundary conditions involving deeply sensitive or offensive questions. Quite possibly, our sensitive questions, which included, "Have you ever cheated on a partner," "How much is your salary," and "How much money do you have in your bank account right now," may be mild in comparison to some potential questions that individuals might ask. Relatedly, we call for future work to build on our investigation of the costs of avoiding asking different sub-types of questions. Just as individuals avoid seeking needed help and advice (e.g., [Bohns & Flynn, 2010](#); [Brooks et al., 2015](#)), we find that people avoid seeking potentially valuable information through questions we defined as sensitive. Future work could document what types of people (e.g., shame- or guilt-prone people) are most likely to incur these costs, or whether there are other types of questions (e.g., presumptive questions) that individuals also systematically avoid.

Another limitation of our investigation relates to the experimental control we imposed on our studies. Across our studies, we assigned participants to the role of either "Asker" or "Respondent." This asymmetry in who asked and who answered questions afforded us control over the nature of the conversation, but future work should explore different types of conversations. Some domains, such as interviews, are characterized by an asymmetry in who asks and who answers questions, but in many natural settings conversational partners both ask and answer questions. For example, future work should explore how asking sensitive questions changes the nature of reciprocal questions. Prior work has documented reciprocity in conversations ([Hauser et al., in preparation](#)), and we conjecture that after an individual asks a sensitive question their conversational partner will be more likely to ask them a sensitive question in return. Quite possibly, individuals anticipate this, and this concern may further deter individuals from asking sensitive questions. The reluctance to ask sensitive questions that we document is probably multiply determined. This aversion may be influenced by concerns about others' comfort, one's own unwillingness to answer similar questions, or even an inability to imagine that sensitive questions could lead to productive conversations. We document a robust phenomenon whereby askers overestimate the relational costs of asking sensitive questions, and we call for future researchers to extend our investigation to test possible mechanisms and moderating factors that contribute to this aversion to asking sensitive questions.

We also call for future work to explore the relationship between questions, responses, and conversational cues that partners miss. Just as

many conversational partners miss deception cues (e.g., [Anderson, DePaulo, Ansfield, Tickle, & Green, 1999](#)), conversational partners appear to miss cues about their counterpart's (dis)comfort. As a result, askers in our studies misperceived their counterparts' experiences. Though our present research focused on pre-conversation expectations and post-conversation evaluations, we recognize that new methodological advances such as facial coding may allow for fine-grained investigation of how conversation partners respond to each other during the conversation. This work could explore how asking follow-up questions or shifting the order of the questions might influence disclosure and relational outcomes. We provide a preliminary investigation of some of the conversational content in our Supplementary Online Materials, and post the transcripts of conversations from Studies 2 and 5 online (OSF: DOI <https://doi.org/10.17605/OSF.IO/GWPA8>). We hope that these materials provide a generative foundation for future conversation researchers, and believe that this line of inquiry holds promise for building our understanding of failed mental models in conversations.

A related direction for future work involves setting conversational expectations. In some settings, such as interviews or dates, individuals expect to be asked sensitive questions. In our studies, respondents expected to receive questions, and perhaps this expectation moderated their reactions to being asked sensitive questions. Future work should explore expectations and how violated expectations influence the nature of conversations and relationships.

We also call for future work to extend our investigation of dyads to multi-party conversations. We suspect that adding an observer to a conversation would moderate the effects of asking sensitive questions. The impression management concerns that askers and respondents have about creating a favorable impression on the third party is likely to guide both what questions askers ask and how respondents reply.

Finally, we offer a word of caution. Though in our studies we did not find that asking sensitive questions caused greater discomfort, it is possible that even a small risk of seriously offending a conversational counterpart or rupturing a relationship may argue for caution with respect to the questions we ask. These risks are likely to be exaggerated in many contexts, including meetings between new acquaintances and friends, but we recognize that concern about a serious misstep may guide important behaviors. Individuals are probably correct in believing that sensitive questions are too risky in some situations, but our findings suggest that they over-apply this heuristic to contexts in which the benefits of asking sensitive questions outweigh the costs.

9.3. Conclusion

We conceptualize asking questions as a conversational tool that solicits information, manages relationships, and manages impressions. We find that people overestimate, both in prospect and in retrospect, the discomfort and relational harm they may cause by asking sensitive questions. As a result, many individuals limit their conversations to topics such as the weather, rather than about rent and relationship status, and consequently miss valuable opportunities to gain information and potentially strengthen their relationships.

CRedit authorship contribution statement

Einav Hart: Conceptualization, Methodology, Formal analysis, Investigation, Writing - original draft, Writing - review & editing, Visualization. **Eric M. VanEpps:** Conceptualization, Methodology, Investigation, Writing - original draft, Writing - review & editing, Funding acquisition. **Maurice E. Schweitzer:** Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Supervision, Funding acquisition.

Acknowledgements

The authors wish to thank the Wharton Behavioral Lab for financial

support, Alexander Hirsch and Sara Sermarini for help in running the experiments, and Alison Wood Brooks, Nazli Bhatia, Jeremy Yip, Brad Bitterly, Gus Cooney, and Erica Boothby for helpful comments.

Appendix A. Questions and ratings

See [Tables A1–A3](#).

Table A1

Topic coding and frequency of participants' self-generated sensitive questions (Pilot study A, N = 50).

Topic	Frequency	Question example
relationship	23.02%	If he ever plans on getting married
lifestyle	15.11%	Why so many cats as pets?
job	11.51%	Whether she plans on trying for a promotion
money	10.07%	How much money she makes.
family	9.35%	Is she pregnant?
health	7.91%	Do you have a drinking problem?
opinion	7.91%	What are his political views on abortion?
crime	3.60%	Has he ever been arrested?
social	3.60%	Do you like Lana?
age	2.88%	How old is he?
school	2.88%	Why didn't he finish college?
religion	1.44%	His religion

Table A2

Question ratings: Means and standard deviations (Pilot Study B, N = 78).

	Sensitive	Intrusive	Awkward	Uncomfort.	Answer conseq.	Info learned	Appropriate
Sensitive questions (average)	4.03 (1.04)	4.14 (1.09)	3.98 (1.13)	3.97 (1.15)	3.01 (1.02)	3.36 (1.02)	1.74 (1.05)
Have you ever cheated on a partner?	4.49 (0.77)	4.64 (0.62)	4.56 (0.71)	4.54 (0.88)	3.44 (1.06)	3.67 (1.05)	1.37 (0.93)
What are your views on abortion?	4.29 (0.90)	4.10 (1.08)	4.03 (1.06)	4.03 (1.12)	3.00 (0.90)	3.33 (0.99)	1.83 (1.1)
How much is your salary?	4.05 (0.97)	4.31 (0.93)	3.87 (1.12)	3.86 (1.15)	2.63 (1.09)	3.31 (0.98)	1.67 (0.96)
Have you had sexual thoughts about someone of the same sex?	4.23 (1.03)	4.53 (0.82)	4.24 (1.10)	4.13 (1.15)	2.83 (1.07)	3.29 (1.03)	1.45 (0.92)
What are your views on immigration?	3.40 (1.13)	3.29 (1.24)	3.27 (1.23)	3.28 (1.19)	2.74 (0.93)	3.13 (1.04)	2.22 (1.06)
Have you ever committed a crime?	4.36 (0.81)	4.41 (0.90)	4.31 (1.00)	4.28 (0.97)	3.33 (0.95)	3.56 (0.99)	1.53 (0.96)
What are your views about gun control?	3.27 (1.12)	3.12 (1.30)	3.23 (1.26)	3.23 (1.23)	2.73 (0.8)	3.18 (1.04)	2.46 (1.16)
Have you ever done drugs?	3.94 (1.14)	4.21 (0.99)	3.81 (1.12)	3.87 (1.19)	3.29 (0.97)	3.32 (1.03)	1.73 (1.05)
Have you ever had financial problems?	4.21 (0.81)	4.41 (0.83)	4.24 (0.89)	4.29 (0.76)	2.69 (0.94)	3.44 (0.91)	1.58 (0.89)
What is the worst lie you've told a partner?	4.12 (0.93)	4.35 (0.88)	4.19 (0.95)	4.23 (1.06)	3.38 (1.02)	3.38 (1.08)	1.59 (0.93)
Non-Sensitive questions (average)	1.64 (0.95)	1.77 (1.07)	1.59 (0.94)	1.54 (0.95)	1.58 (0.85)	2.41 (0.97)	3.82 (1.12)
What do you think about the weather?	1.18 (0.62)	1.22 (0.80)	1.26 (0.63)	1.18 (0.70)	1.33 (0.82)	2.10 (1.05)	4.59 (0.75)
What are your current job responsibilities?	2.06 (0.94)	2.29 (0.82)	1.87 (0.89)	1.90 (0.96)	1.87 (0.80h)	2.90 (0.89)	3.09 (1.01)
Are you a morning person?	1.49 (0.88)	1.50 (0.89)	1.36 (0.74)	1.36 (0.87)	1.44 (0.88)	2.26 (0.81)	4.05 (1.01)
What travel route do you typically use to get to work?	1.90 (1.05)	2.15 (1.24)	1.77 (1.14)	1.76 (1.14)	1.73 (0.8)	2.64 (1.04)	3.50 (1.24)
How did you get your current job?	2.22 (0.95)	2.44 (1.09)	2.09 (1.10)	1.96 (0.99)	1.85 (0.77)	2.88 (0.95)	3.08 (1.03)
What are your views on pop music?	1.47 (0.83)	1.50 (0.89)	1.41 (0.73)	1.41 (0.80)	1.60 (0.90)	2.41 (0.92)	4.18 (0.89)
How many hours do you work?	1.91 (0.89)	2.13 (1.06)	1.71 (0.9)	1.69 (0.93)	1.72 (0.80)	2.53 (0.85)	3.42 (1.00)
Have you ever mowed a lawn?	1.33 (0.91)	1.40 (0.97)	1.49 (0.98)	1.32 (0.89)	1.37 (0.88)	1.90 (0.80)	4.10 (0.96)
What season do you like best?	1.26 (0.80)	1.35 (1.00)	1.31 (0.87)	1.21 (0.76)	1.32 (0.8)	2.23 (0.99)	4.62 (0.71)
How many people do meet in a day?	1.60 (0.96)	1.76 (1.07)	1.64 (0.95)	1.58 (1.01)	1.54 (0.88)	2.24 (0.87)	3.58 (1.13)

Table A3

Question ratings in conversations with Friends vs. Strangers: Means and standard deviations (Pilot study for Study 5 stimuli, N = 81).

	Sensitivity Rating		
	Strangers	Friends	Total
Sensitive questions (average)	3.95 (0.78)	3.26 (0.83)	3.61 (0.87)
How much money do you have in your bank account right now?	3.89 (0.95)	3.48 (1.11)	3.69 (1.04)
Have you ever fantasized about your boss or teacher?	4.03 (0.97)	3.22 (1.08)	3.63 (1.10)
While in a relationship, have you flirted with somebody other than your partner?	4.02 (0.76)	3.04 (1.03)	3.53 (1.02)
Have you tried to gain access to someone else's email account or text messages?	4.08 (0.85)	3.39 (0.91)	3.74 (0.94)
Have you ever gone to therapy?	3.76 (0.95)	3.18 (1.00)	3.47 (1.01)
Non-Sensitive questions (average)	1.93 (1.24)	1.84 (1.16)	1.89 (1.19)
What did you have for breakfast this morning?	1.99 (1.27)	1.90 (1.17)	1.95 (1.22)
Have you ever been to Canada?	1.92 (1.25)	1.81 (1.18)	1.87 (1.21)
What kind of phone do you have?	1.96 (1.29)	1.93 (1.31)	1.94 (1.29)
Do you drink coffee?	1.91 (1.23)	1.77 (1.18)	1.84 (1.20)
What is your favorite color?	1.88 (1.26)	1.81 (1.24)	1.85 (1.24)

Appendix B. Conversation samples

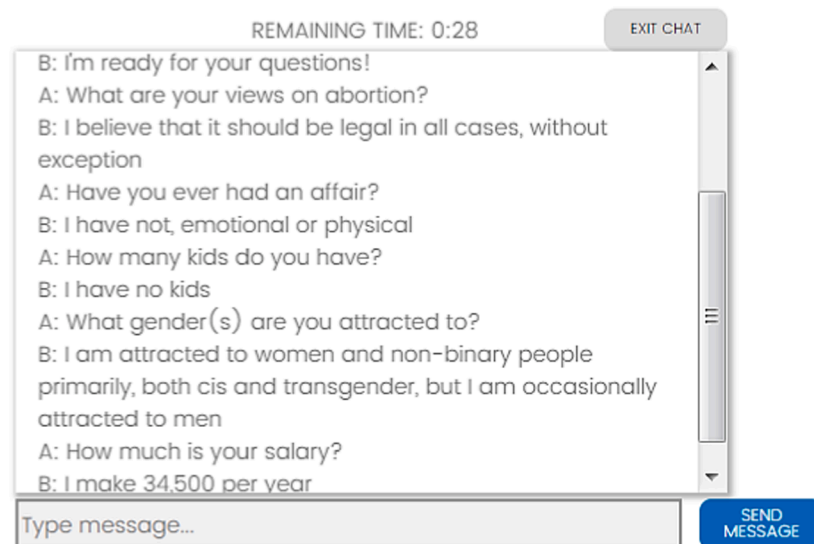
See Figs. B1 and B2.

****ASKER****

You have chosen the following five questions to ask:

What gender(s) are you attracted to?, Have you ever had an affair?, How many kids do you have?, What are your views on abortion?, How much is your salary?

Hit 'Enter' or the 'Send message' button to send a message.

**Fig. B1.** Screenshot of Asker chat screen, including their five chosen questions (Discomfort condition, Study 2).

****RESPONDER****

Hit 'Enter' or the 'Send message' button to send a message.

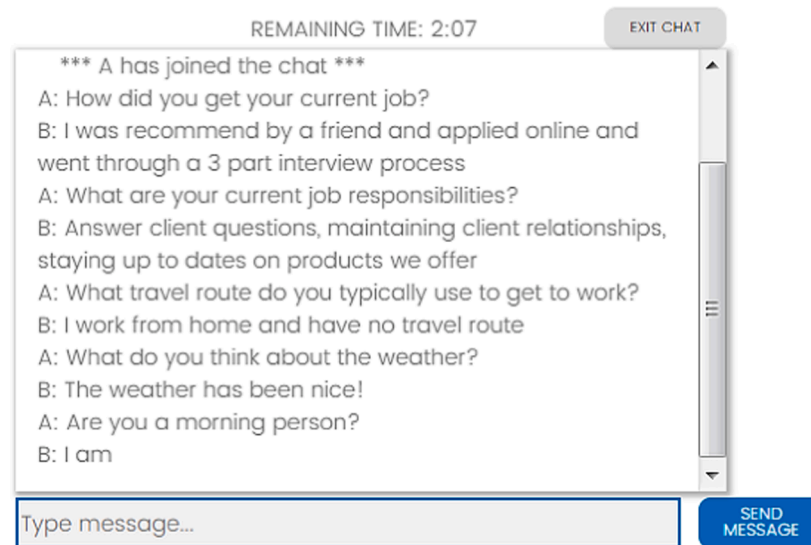


Fig. B2. Screenshot of Respondent chat screen (Control condition, Study 2).

Appendix C. Measures

We asked both Askers and Respondents to complete the measures below, listed by study. We present the full instructions for each study in our Supplementary Online Materials. We focus on the comparisons between Askers' assessments of Respondents' reactions to the conversation and their matched Respondents' actual ratings.

Pre-conversation measures (Studies 3, 4, 5)

1. After this conversation, how do you think you will feel?^a
2. After this conversation, how do you think your counterpart will feel?^a
3. After this conversation, what do you think will be your counterpart's impression of you?^b

Post-conversation measures (Studies 1, 2, 4, 5)

1. After this conversation, how do you feel?^a
2. After this conversation, how do you think your counterpart feels?^a
3. After this conversation, what is your impression of your counterpart?^b
4. After this conversation, what is your counterpart's impression of you?^b

Post-conversation appropriateness measures (Studies 1, 2, 4)

1. How appropriate were the questions asked during the conversation, on average?^c
2. How appropriate do you think your counterpart would rate the questions, on average?^c

^aRated on a 5-point scale from "Extremely comfortable" to "Extremely uncomfortable".

^bRated on a 5-point scale from "Extremely negative" to "Extremely positive".

^cRated on a 5-point scale from "Extremely appropriate" to "Extremely inappropriate".

Appendix D. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.obhdp.2020.10.014>.

References

- Acquisti, A., John, L. K., & Loewenstein, G. (2012). The impact of relative standards on the propensity to disclose. *Journal of Marketing Research*, 49(2), 160–174.
- Anderson, D. E., DePaulo, B. M., Ansfield, M. E., Tickle, J. J., & Green, E. (1999). Beliefs about cues to deception: Mindless stereotypes or untapped wisdom? *Journal of Nonverbal Behavior*, 23(1), 67–89.
- 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.
- Barry, D. (1998). *Dave Barry Turns 50*. New York: Ballantine Books.
- Belli, R. F., Moore, S. E., & VanHoewyk, J. (2006). An experimental comparison of question forms used to reduce vote overreporting. *Electoral Studies*, 25(4), 751–759.
- Belli, R. F., Traugott, M. W., Young, M., & McGonagle, K. A. (1999). Reducing vote overreporting in surveys: Social desirability, memory failure, and source monitoring. *The Public Opinion Quarterly*, 63(1), 90–108.
- Bitterly, T. B., & Schweitzer, M. E. (2020). The economic and interpersonal consequences of deflecting direct questions. *Journal of Personality and Social Psychology*, 118(5), 945–990.
- Bohns, V. K., & Flynn, F. J. (2010). "Why didn't you just ask?" Underestimating the discomfort of help-seeking. *Journal of Experimental Social Psychology*, 46, 402–409.
- Brooks, A. W., Gino, F., & Schweitzer, M. E. (2015). Smart people ask for (my) advice: Seeking advice boosts perceptions of competence. *Management Science*, 61(6), 1421–1435.
- Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage* (Vol. 4). Cambridge University Press.
- Buehler, R., & McFarland, C. (2001). Intensity bias in affective forecasting: The role of temporal focus. *Personality and Social Psychology Bulletin*, 27(11), 1480–1493.
- Caruso, E., Epley, N., & Bazerman, M. H. (2006). The costs and benefits of undoing egocentric responsibility assessments in groups. *Journal of Personality and Social Psychology*, 91, 857–871.
- Catania, J. A., Binson, D., Canchola, J., Pollack, L. M., Hauck, W., & Coates, T. J. (1996). Effects of interviewer gender, interviewer choice, and item wording on responses to questions concerning sexual behavior. *Public Opinion Quarterly*, 60(3), 345–375.

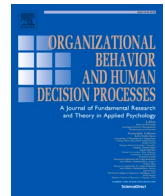
- Chen, F. S., Minson, J. A., & Tormala, Z. L. (2010). Tell me more: The effects of expressed interest on receptiveness during dialog. *Journal of Experimental Social Psychology*, 46(5), 850–853.
- DePaulo, B. M., & Fisher, J. D. (1980). The costs of asking for help. *Basic and Applied Social Psychology*, 1(1), 23–35.
- Duffey, E. B. (1877). *The Ladies' and Gentleman's Etiquette: A Complete Manual of the Manners and Dress of American Society. Containing Forms of Letters, Invitations, Acceptances, and Regrets. With a Copious Index.* Porter and Coates.
- Dorison, C. A., Minson, J. A., & Rogers, T. (2019). Selective exposure partly relies on faulty affective forecasts. *Cognition*, 188, 98–107.
- Epley, N., & Schroeder, J. (2014). Mistakenly seeking solitude. *Journal of Experimental Psychology: General*, 143, 1980–1999.
- Flynn, F. J., & Lake, V. K. (2008). If you need help, just ask: Underestimating compliance with direct requests for help. *Journal of Personality and Social Psychology*, 95(1), 128–143.
- Gelfand, M. J., & Brett, J. M. (2004). *The handbook of negotiation and culture.* Palo Alto, CA: Stanford University Press.
- Gilbert, D. T., Lieberman, M. D., Morewedge, C. K., & Wilson, T. D. (2004). The peculiar longevity of things not so bad. *Psychological Science*, 15(1), 14–19.
- Gilbert, D. T., Pined, E. C., Wilson, T. D., Blumberg, S. J., & Wheatley, T. P. (1998). Immune neglect: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology*, 75(3), 617–638.
- Gino, F., Brooks, A. W., & Schweitzer, M. E. (2012). Anxiety, advice, and the ability to discern: Feeling anxious motivates individuals to seek and use advice. *Journal of Personality and Social Psychology*, 102(3), 497–512.
- Goffman, E. (1967). *Interaction ritual: Essays on face-to-face interaction.* Oxford, England: Aldine.
- Hauser, R., Yeomans, M., Brooks, A. W., & Norton, M. I. Ask-sharing: Feigning interest in others to set up your disclosures (in preparation).
- Holtgraves, T., Eck, J., & Lasky, B. (1997). Face management, question wording, and social desirability. *Journal of Applied Social Psychology*, 27(18), 1650–1671.
- Huang, K., Yeomans, M., Brooks, A. W., Minson, J. A., & Gino, F. (2017). It doesn't hurt to ask: Question-asking increases liking. *Journal of Personality and Social Psychology*, 113(3), 430–452.
- Jeong, M., Minson, J. A., Yeomans, M., & Gino, F. (2019). Communicating with warmth in distributive negotiations is surprisingly counterproductive. *Management Science*, 65(12), 5813–5837.
- John, L. K., Acquisti, A., & Loewenstein, G. (2011). Strangers on a plane: Context-dependent willingness to divulge sensitive information. *Journal of Consumer Research*, 37, 858–873.
- John, L. K., Loewenstein, G., & Prelec, D. (2012). Measuring the prevalence of questionable research practices with incentives for truth-telling. *Psychological Science*, 23(5), 524–532.
- Jourard, S. M., & Friedman, R. (1970). Experimenter-subject "distance" and self-disclosure. *Journal of Personality and Social Psychology*, 15(3), 278–282.
- Kruger, J., Epley, N., Parker, J., & Ng, Z.-W. (2005). Egocentrism over e-mail: Can we communicate as well as we think? *Journal of Personality and Social Psychology*, 89, 925–936.
- Lapidot-Lefler, N., & Barak, A. (2012). Effects of anonymity, invisibility, and lack of eye-contact on toxic online disinhibition. *Computers in Human Behavior*, 28(2), 434–443.
- Lee, F. (1997). When the going gets tough, do the tough ask for help? Help seeking and power motivation in organizations. *Organizational Behavior and Human Decision Processes*, 72(3), 336–363.
- Lee, F. (2002). The social costs of seeking help. *The Journal of Applied Behavioral Science*, 38(1), 17–35.
- Minson, J. A., VanEpps, E. M., Yip, J. A., & Schweitzer, M. E. (2018). Eliciting the truth, the whole truth, and nothing but the truth: The effect of question phrasing on deception. *Organizational Behavior and Human Decision Processes*, 147, 76–93.
- Molnar, A. (2019). SMARTRIQS: A simple method allowing real-time respondent interaction in qualtrics surveys. *Journal of Behavioral and Experimental Finance*, 22, 161–169.
- Näher, A. F., & Krumpal, I. (2012). Asking sensitive questions: The impact of forgiving wording and question context on social desirability bias. *Quality & Quantity*, 46(5), 1601–1616.
- Roberts, A. R., Levine, E. E., & Sezer, O. (2020). Hiding success. *Journal of Personality and Social Psychology*. Advance online publication. <https://doi.org/10.1037/pspi0000322>.
- Rogers, T., & Norton, M. I. (2011). The artful dodger: Answering the wrong question the right way. *Journal of Experimental Psychology: Applied*, 17, 139–147.
- Ross, L., Greene, D., & House, P. (1977). The "false consensus effect": An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13, 279–301.
- Schaeffer, N. C., & Presser, S. (2003). The science of asking questions. *Annual Review of Sociology*, 29(1), 65–88.
- Schweitzer, M. E., & Croson, R. (1999). Curtailing deception: The impact of direct questions on lies and omissions. *International Journal of Conflict Management*, 10, 225–248.
- Scopelliti, I., Loewenstein, G., & Vosgerau, J. (2015). You call it "self-exuberance"; I call it "bragging". *Psychological Science*, 26, 903–914.
- Sezer, O., Brooks, A. W., & Norton, M. I. (2018). *Backhanded compliments: How negative comparisons undermine flattery.* Harvard Business School. <https://doi.org/10.2139/ssrn.3439774>.
- Sezer, O., Gino, F., & Norton, M. I. (2017). Humblebragging: A distinct—and ineffective—self-presentation strategy. *Journal of Personality and Social Psychology*, 114, 52–74.
- Steinmetz, J., Sezer, O., & Sedikides, C. (2017). Impression mismanagement: People as inept self-presenters. *Social and Personality Psychology Compass*, 11, Article e12321.
- Stinson, L., & Ickes, W. (1992). Empathic accuracy in the interactions of male friends versus male strangers. *Journal of Personality and Social Psychology*, 62(5), 787.
- Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & Behavior*, 7(3), 321–326.
- Thomas, G., & Fletcher, G. J. (2003). Mind-reading accuracy in intimate relationships: Assessing the roles of the relationship, the target, and the judge. *Journal of Personality and Social Psychology*, 85(6), 1079.
- Thompson, L. L., & Hastie, R. (1990). Social perception in negotiation. *Organizational Behavior and Human Decision Processes*, 47, 98–123.
- Tourangeau, R., Couper, M. P., & Steiger, D. M. (2003). Humanizing self-administered surveys: Experiments on social presence in web and IVR surveys. *Computers in Human Behavior*, 19(1), 1–24.
- Tourangeau, R., & Smith, T. W. (1996). Asking sensitive questions: The impact of data collection mode, question format, and question context. *Public Opinion Quarterly*, 60(2), 275–304.
- Tourangeau, R., & Yan, T. (2007). Sensitive questions in surveys. *Psychological Bulletin*, 133, 859–883.
- Williams, P., Block, L. G., & Fitzsimons, G. J. (2006). Simply asking questions about health behaviors increases both healthy and unhealthy behaviors. *Social Influence*, 1(2), 117–127.
- Wilson, T. D., & Gilbert, D. T. (2003). Affective forecasting. *Advances in Experimental Social Psychology*, 35(35), 345–411.

Update

Organizational Behavior and Human Decision Processes

Volume 165, Issue , July 2021, Page 250

DOI: <https://doi.org/10.1016/j.obhdp.2021.02.001>



Corrigendum

Corrigendum to “The (better than expected) consequences of asking sensitive questions” [Org. Behav. Hum. Decis. Process. 162 (2021) 136–154][☆]

Einav Hart^{a,*}, Eric M. VanEpps^b, Maurice E. Schweitzer^c

^a George Mason University, United States

^b University of Utah, United States

^c University of Pennsylvania, United States

Corrected Figure 7 (Study 5).

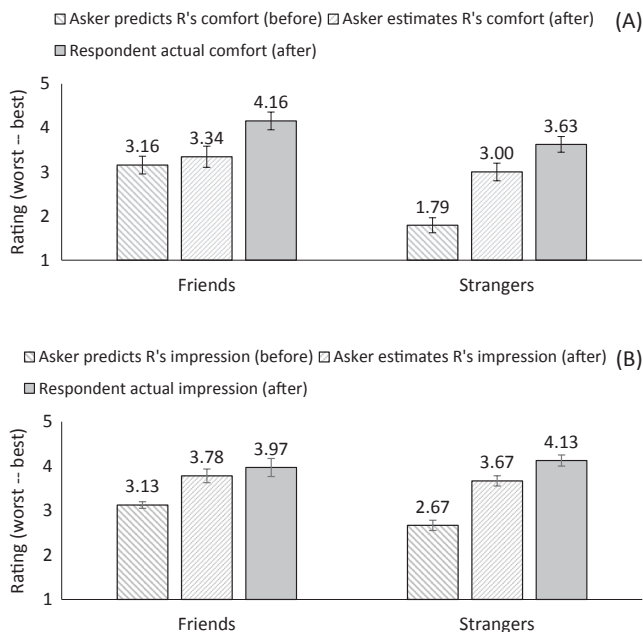


Fig. 7. Askers' predictions before the face-to-face conversation with their friend or with a stranger, Askers' estimates after the face-to-face conversation, and Respondents' actual reactions to the conversation (Study 5, N = 112). Panel (A) Respondents' comfort level after the conversation. Panel (B) Respondents' impression of the Askers. Note. Error bars represent ± 1 S.E.M.

DOI of original article: <https://doi.org/10.1016/j.obhdp.2020.10.014>.

[☆] This article is part of the special issue “The Psychology of Conversation,” Edited by Alison Wood Brooks, Mike Norton, Dan Gilbert, and Ethan Kross.

* Corresponding author at: George Mason University, 4400 University Drive MSN 5F5, Fairfax, VA 22030–4022, United States.

E-mail address: ehart8@gmu.edu (E. Hart).

<https://doi.org/10.1016/j.obhdp.2021.02.001>

Available online 24 February 2021

0749-5978/© 2021 Published by Elsevier Inc.