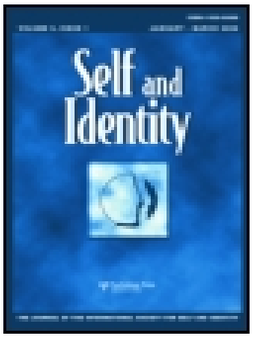

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Why do people avoid talking to strangers? A mini meta-analysis of predicted fears and actual experiences talking to a stranger

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ABSTRACT

People are often reluctant to talk to strangers, despite the fact that they are happier when they do so. We investigate this apparent paradox, meta-analyzing pre-conversation predictions and post-conversation experiences across seven studies (N = 2304). We examine: fears of not enjoying the conversation, not liking one's partner, and lacking conversational skills; fears of the partner not enjoying the conversation, not liking oneself, and lacking conversational skills. We examine the relative strength of these fears, and show that the fears are related to talking behavior. We report evidence that people's fears are overblown. Finally, we report two interventions designed to reduce fears: conversation tips, and the experience of a pleasant conversation. Ultimately, this research shows that conversations go better than expected.

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Social interaction; conversation; intervention; meta-analysis

When Jonathan Dunne got tired of sitting in silence during his commute in London, he figured others must feel the same way. He started a movement to get people chatting, handing out free "Tube chat?" badges. The response was not what he expected. Media coverage in The Guardian said: "'Tube chat' campaign provokes horror among London commuters" (Grierson, 2016). Hundreds of people took to Twitter to protest the campaign (e.g., "What is this monstrosity?! This is too much. Make it stop. Say no to #tube_chat" and "Some irresponsible fool trying to undermine the fabric of society by encouraging talking on the London Underground"), and people created their own badges in response (e.g., "Don't even think about talking to me" and "Wake me up if a dog gets on").

Research in the field of positive psychology makes a strong case that social relationships are the single most important predictor of people's well-being, going so far as to argue that people, with their powerful need to belong to social groups (Aronson, 2012; Baumeister & Leary, 1995; Dunbar & Shultz, 2007), cannot maximize their well-being without having meaningful social relationships (Diener & Seligman, 2002; Lyubomirsky et al., 2005). Happier people spend more time talking to others (Mehl et al., 2010; Milek

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The supplemental data for this article can be accessed here.

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et al., 2018), and when people have more conversations with others, they report being happier (Sandstrom & Dunn, 2014b; Sun et al., 2019; Watson et al., 1992).

"Strong tie" relationships with close friends and family play the biggest part in a person's well-being, but even social interactions with strangers have value. Chances are that if people actually did talk to someone on the Tube, they would enjoy it more than they expected (as one of the authors will attest). Indeed, Epley and Schroeder (2014) found that commuters on the train and bus in Chicago enjoyed talking to fellow passengers more than they expected, and – despite their concerns – they were almost never rejected. Although Brits might try to tell you that these studies would not have worked in London, in fact Epley and Schroeder recently replicated their study with London commuters (Epley & Schroeder, 2019).

Of course, talking to strangers is not limited to commuting. Every friend starts as a stranger, and when one moves to a new neighborhood, or starts a new job, it is talking to strangers that helps build the social connections that make people feel at home. And yet, people seem reluctant to talk to strangers, passing up a readily available source of well-being. Why?

One possibility is that, despite the fact that it is generally enjoyable, people believe talking to strangers will be stilted, awkward, and unpleasant. Indeed, people are skeptical of the value of moments of connection with new people, and yet research shows that people benefit from talking to strangers, often more than they expect (Epley & Schroeder, 2014; Gunaydin, Oztekin et al., 2020; Sandstrom & Dunn, 2014a). In short, research suggests that while people actually *do* enjoy conversations with strangers, and benefit from the moments of social connection they provide, people nevertheless fear that they and their conversation partner will not enjoy the conversation. We call this people's fear about *conversation enjoyment*.

Another reason people may avoid talking to strangers is because they worry that others will not like them or be interested in talking to them (Epley & Schroeder, 2014). That is, when thinking about talking to strangers, people fear others will be disinterested in them or even that they will be flat out rejected, making people hesitant to attempt to strike up conversations with new people. Research shows that after a conversation, people believe that they like their conversation partner more than their conversation partner likes them (Boothby et al., 2018). However, people may also fear they won't be liked before the conversation even begins. And moreover, they may fear they will not like their partner. In short, research suggests that people may be overly pessimistic about how much they and their conversation partner will like one another when considering talking to new people. We call this people's fear about *interpersonal liking*.

A third possibility is that people feel incapable of talking to a stranger; they don't know how they would start a conversation, keep it going without awkward silences, and end it when necessary or desired (Boothby, Walker et al., under review; Mastroianni et al., forthcoming). People exhibit a range of incompetencies in conversation. For example, people tell the wrong kinds of stories in conversation: they talk about extraordinary experiences instead of ordinary experiences, and they tell stories that contain too much novel information to be fully understood by conversation partners (Cooney et al., 2014, 2017). And they are afraid of demonstrating incompetence, because people have a pronounced and overblown fear that they will be judged quite harshly for any flaws or faux pas – more harshly than they in fact are (Savitsky et al., 2001). Moreover, people

tend to compare themselves to more extraverted others when reflecting on their conversational abilities, leading them to believe they are less capable conversationalists than other people are, further compounding their fears about their own ability to talk to strangers (Davidai et al., 2020; Deri et al., 2017). In short, because people are often hyper-aware of their lack of skill in conversing with strangers, such fears about their own *conversational ability* may contribute to their hesitance in talking to new people.

Indeed, all three of these fears could be simultaneously at play, conspiring to limit friendly conversation among strangers. In sum, we sought to examine the relative strength of three fundamental categories of fears about talking to strangers – conversation enjoyment, interpersonal liking, and conversational ability. Moreover, we investigate each of these three categories of fears both in terms of oneself (e.g., own predicted enjoyment), and in terms of one's conversation partner (e.g., prediction about the extent to which their partner will like them).

The present research

In this paper, we meta-analyze data from seven studies to address several questions. First, we examine the fears that people report when they consider talking to a stranger, and compare their relative strength. Second, we look at how these fears are related to actual talking behavior. Next, we examine the accuracy of these fears, by comparing people's predictions before talking to a stranger to the experiences they report after having actually talked to a stranger. Finally, we test two interventions to reduce people's fears. First, we test whether providing people with tips on how to talk to strangers reduces people's fears and/or improves their experiences. Second, we test whether the experience of having a pleasant conversation with a stranger improves people's predictions about future conversations.

Methods

Participants

A total of 2304 people participated across seven studies. Some studies recruited via university subject pools, but others recruited members of the general public. See Table 1 for the size of each sample, and its demographic characteristics (gender and age). Ethical approval for each study was obtained by the Ethics Committee of the Department of Psychology at the University of Essex (see Table S2). All participants provided informed written consent.

Procedure

We report the results of seven studies: online-vignette, lab-confederate, lab-intervention, field-1, field-2, field-tips, and workshop (see Table 1 for a list of studies, and a description of each study's methods). Participants made predictions about talking to a stranger, and then in all studies (except online-vignette) participants actually talked to a stranger (or at least had the opportunity to do so). In some studies, participants were provided with a confederate to talk to in the lab, whereas in other studies participants chose their

Table 1. Sample size, demographic information and description for each study.

Study	N Full	N Control-all	N Control-talkers	Sex (% female)	Age: M(SD)	Description	
Online-vignette	150	150	n/a	50	30 (11)	Participants:	Members of the general public in the U.K. (via Prolific Academic)
						Conversation:	none
						Protocol:	Imagined talking to a stranger of a similar age, gender and ethnicity; reported their expectations
Lab-confederate	78	78	78	87	20 (6)	Participants:	University subject pool; course credit
						Conversation:	5-min conversation with confederate in the lab
						Protocol:	Reported their expectations about an upcoming conversation; had the conversation; reported their experiences
						Manipulation:	After their (presumably) pleasant conversation, participants reported their expectations for a future (hypothetical) conversation
Lab-intervention	111	60	37	-	-	Participants	University subject pool; course credit
						Conversation:	3-min conversation with confederate in the lab
						Protocol:	Told they would be talking to a stranger (A); received manipulation (or not); reported their expectations about talking to A; were provided with an opportunity to talk to a stranger (B; ostensibly while waiting to talk to A)
						Manipulation:	(1) Participants in the experimental condition (N = 51) were provided with a comprehensive manipulation, including tips on how to start the conversation; participants in the control condition (N = 60) received no additional information.
							(2) After talking to a stranger (for those who took advantage of the opportunity), participants again reported expectations about talking to A
Field-1	198	198	198	74	20 (2)	Participants:	University subject pool; course credit or money
						Conversation:	Approached several people in the field and spoke as long as desired
						Protocol:	Reported their expectations of talking to one or more strangers every day for a week, as part of a scavenger hunt game; played the scavenger hunt game for a week; reported their experiences

(*Continued*)

Table 1. (Continued).

Study	N Full	N Control-all	N Control-talkers	Sex (% female)	Age: M(SD)	Description	
						Manipulation:	After a week of (presumably) pleasant conversations, participants reported their expectations for a (hypothetical) additional week of the scavenger hunt game (i.e., talking to strangers)
Field-2	1521	1521	117	74	39 (13)	Participants:	Members of the general public in the U.S. and U.K.; no compensation
						Conversation:	Approached someone in the field and spoke as long as desired
						Protocol:	Reported their expectations of talking to a stranger as part of a scavenger hunt game; had one conversation with a stranger as part of the scavenger hunt game; reported their experience
						Manipulation:	After their (presumably) pleasant conversation, a subset of participants reported their expectations for a future (hypothetical) conversation
Field-tips	145	69	69	68	21 (2)	Participants:	Recruited in person on a university campus (no compensation), or through a university subject pool (course credit)
						Conversation:	Approached someone on campus and spoke as long as desired
						Protocol:	Learned they would be talking to a stranger; either received a manipulation or not; reported their expectations about the upcoming conversation; approached and talked to a stranger; reported their experiences
						Manipulation:	Provided with tips (N = 76) or not (N = 69)
Workshop	101	101	101	56	31 (9)	Participants:	Members of the general public in the U.K. who attended a How to Talk to Strangers workshop; no compensation (other than the value of attending the workshop)
						Conversation:	3–5 min conversation with another workshop attendee
						Protocol:	Learned they would be talking to a stranger; reported their expectations about the upcoming conversation; talked to a stranger; reported their experiences
Total	2304	2177	600				

conversation partner "in the wild." One of the datasets was collected at a series of How to Talk to Strangers workshops that were run by the first author for members of the general public.

Measures

Although different measures were used in each study, there was substantial overlap. We originally generated our primary dependent measures – a list of fears about having conversations with strangers – by asking participants in the first two How to Talk to Strangers workshops to respond to open-ended prompts, reporting their hopes and fears about an upcoming conversation with a stranger; subsets of these fears were included in each of the present studies. For the purposes of this paper, we grouped the fear items into six composite variables: own conversation enjoyment, own liking of the partner, own conversational ability, partner's conversation enjoyment, partner's liking of oneself, partner's conversational ability. To maximize our ability to compare across studies, we included only items that were in at least five of the seven studies (see Table S1 in the Supplementary Materials for details about the items included each study, and Table S2 for links to complete materials for each study on OSF; one exception noted below).

When items were measured on different scales in different studies, responses were converted to a common scale based on the smallest range. For example, if items were measured on a 1–5 scale in one study and a 1–4 scale in another study, the responses in the first study would be multiplied by 4/5 to convert them to a 1–4 scale.[1]

Conversation enjoyment

The four items for *own conversation enjoyment* assessed: enjoyment[2]; feeling awkward; and evaluating the conversation as awkward or meaningless. Enjoyment was the sole item for *partner's conversation enjoyment*. As with all of the composites, all items were measured on (or converted to) a 5-point scale, and higher scores indicate greater apprehension about the upcoming conversation with a stranger. See Table 2 for reliability estimates and descriptives.

Interpersonal liking

There were no items relevant to this composite that were included in at least five studies, so we used a single item for *own liking of partner* that was included in four studies, that assessed unpleasantness of the partner. The three items for *partner's liking of oneself* assessed: partner not liking them, finding them boring, or rejecting them.

Conversational ability

The four items for *own conversational ability* assessed not knowing how to start or maintain the conversation, and talking too little or too much. The single item for *partner's conversational ability* assessed the partner talking too little.

Talking to strangers behavior

In four studies, we asked people: "How normal is it for you to talk to strangers?", on a 4-point scale
($M_{\text{lab-confederate}}$ = 2.28, SD = 0.84;
$M_{\text{lab-intervention}}$ = 2.47, SD = 0.85; $M_{\text{field-1}}$ = 2.62, SD = 0.86; M_{workshop} = 2.49, SD = 0.83).

Table 2. Reliability and descriptives, plus t-tests comparing predictions vs. experiences of talking to a stranger (control-all and control-talkers datasets).

Fear composite		Online-vignette N = 150	Lab-confederate N = 78	Lab-intervention N = 60	Field-1 N = 198	Field-2 N = 1521	Field-tips N = 69	Workshop N = 101	Meta-analysis
Own conversation enjoyment	Reliability	.84; n/a	.72;.83	.60; n/a	.79; .72	.74; .75	.74; .74	.60; .84	
	Before	3.11 (1.04)	3.32 (0.94)	3.33 (0.62)	2.95 (0.89)	3.25 (0.88)	3.09 (1.01)	2.58 (0.78)	
	After		1.86 (1.04)		2.62 (0.92)	2.01 (0.87)	2.21 (1.00)	1.89 (0.93)	
	t-test		$t(77) = 11.27$		$t(194) = 4.84$	$t(116) = 13.45$	$t(68) = 6.20$	$t(26) = 6.06$	**d= 0.97, CI_{95} = [0.48, 1.46]**
Liking of partner	Reliability	Single item	Single item	Single item	n/a	n/a	n/a	Single item	
	Before	2.60 (1.08)	2.62 (1.29)	2.49 (1.27)				2.33 (1.18)	
	After		0.80 (0.30)					1.16 (0.70)	
	t-test		$t(77) = 12.28$					$t(26) = 4.85$	**d= 1.57, CI_{95} = [0.83, 2.31]**
Own convo ability	Reliability	.63; n/a	.61; .75	.67; n/a	.71; .66	.64; .68	.73; .62	.54; .66	
	Before	3.01 (0.88)	3.05 (0.85)	3.09 (0.94)	2.59 (0.88)	3.10 (0.93)	2.65 (1.06)	2.96 (0.83)	
	After		1.60 (0.80)		2.20 (0.75)	1.71 (0.77)	1.55 (0.75)	2.09 (0.85)	
	t-test		$t(77) = 14.57$		$t(194) = 6.21$	$t(116) = 15.24$	$t(68) = 9.37$	$t(26) = 4.04$	**d= 1.20, CI_{95} = [0.64, 1.77]**
Partner's conversation enjoyment	Reliability	Single item	n/a	Single item	Single item	Single item	Single item	n/a	
	Before	3.01 (1.20)		3.14 (0.85)	2.82 (0.84)	3.14 (0.88)	3.20 (0.83)		
	After					2.11 (0.95)	2.72 (1.17)		
	t-test					$t(116) = 11.30$	$t(68) = 3.18$**		**d= 0.79, CI_{95} = [0.14, 1.45]**
Partner's liking of oneself	Reliability	.83; n/a	.87; .77	.81; n/a	.81; .74	.81; .66	.81; .67	.80; .87	
	Before	3.00 (1.12)	2.86 (1.15)	2.81 (1.21)	2.47 (0.97)	3.17 (1.04)	2.85 (1.25)	2.73 (1.11)	
	After		1.16 (0.55)		1.68 (0.69)	1.28 (0.55)	1.49 (0.82)	1.40 (0.87)	
	t-test		$t(77) = 13.18$		$t(194) = 10.80$	$t(116) = 20.13$	$t(68) = 8.67$	$t(26) = 5.36$	**d= 1.52, CI_{95} = [1.00, 2.05]**
Partner's convo ability	Reliability	Single item	Single item	Single item	Single item	Single item	Single item	Single item	
	Before	2.70 (1.15)	3.27 (0.92)	3.47 (1.19)	2.72 (1.15)	2.99 (1.12)	3.27 (1.14)	2.94 (1.11)	
	After		1.03 (0.47)		2.36 (0.97)	1.37 (0.96)	1.70 (1.36)	1.76 (1.20)	
	t-test		$t(77) = 19.28$		$t(193) = 3.63$	$t(116) = 12.48$	$t(68) = 7.41$	$t(26) = 3.82$	**d= 1.41, CI_{95} = [0.62, 2.20]**

For each composite variable for each study, we report: reliability before and after the conversation, using Cronbach's alpha; the mean and standard deviation before and after the conversation; a t-test comparing the predictions before the conversation to the experiences reported after the conversation (except for the online-vignette study, which did not include a conversation, and the lab-intervention study, which included a conversation, but did not include reports of experiences after the conversation). All t-tests are significant at $p < .001$ except for one, marked with **to indicate $p < .01$. Significant meta-analyses are marked in bold. The descriptives use the control-all dataset; the t-tests use the control-talkers dataset, except for the online-vignette study, which has no talkers, and uses the control-all dataset. All variables are on a 1–5 scale.

In two studies we asked people how many strangers they had spoken to in the previous week. In the workshop study, this question was assessed on a 4-point categorical scale, with 0 = no conversations, 1 = 1 or 2 conversations, 2 = 3 to 5 conversations, 3 = more than 5 conversations, so we converted the responses in the field-1 study to the same scale ($M_{\text{field-1}} = 1.87$, $SD = 0.92$; $M_{\text{workshop}} = 1.44$, $SD = 1.15$).

The field-1 study included both of these measures, and they were moderately correlated, $r(194) = .41$, $p < .001$, $d = 0.90$.[3]

In one study we gave people the opportunity to talk to a stranger, and assessed the proportion of people who chose to talk.

Individual differences

We included four measures of individual differences in attitudes toward, and perceived ability to talk to strangers: **interaction anxiety** (4-point scale; measured in 5 studies; Leary, 1983), **social self-esteem** (5-point scale; measured in 4 studies; Heatherton & Polivy, 1991), **shyness** (5-point scale; measured in 2 studies; McCroskey & Richmond, 1982), and **social curiosity** (4-point scale; measured in 5 studies; Renner, 2006). We also included a measure of well-being: **happiness** was assessed using all four items of the Subjective Happiness Scale (7-point scale; measured in 2 studies; Lyubomirsky & Lepper, 1999). Finally, we measured the **Big Five personality dimensions** using all ten items of the Ten Item Personality Inventory (7-point scale; measured in 3 studies; Gosling et al., 2003). These individual difference variables were sometimes assessed before talking to a stranger, sometimes assessed after talking, and sometimes assessed both before and after talking, in which case we a priori decided to use the measurements before talking. See Table S3 for the list of items that are included in each study, and Table S4 for reliability alphas and descriptives.

Data analytic strategy

Analyses used one of three subsets of the data: full, control-all, control-talkers (see Table 1 for N's for each dataset). These datasets only differed from each other in the studies that involved interventions. The tips intervention analyses use the full dataset, comparing people who received tips to people who did not. All remaining analyses include only participants in control conditions (control-all or control-talkers); given that interventions could potentially affect people's expectations for their upcoming conversation, we excluded from these analyses all participants who were exposed to an intervention (i.e., participants in the experimental conditions in the lab-intervention and field-tips studies). Analyses that compare expectations to experiences include only control participants who had a conversation with a stranger, and therefore had experiences to report (control-talkers; i.e., all control participants in the lab-confederate, field-1, field-tips and workshop studies; participants who took advantage of the opportunity to talk in the lab-intervention study; and participants who reported after talking to a stranger in the field-2 studies). The results section indicates which dataset was used for each analysis.

In order to estimate the size of the key effects, we conducted internal meta-analyses across all studies that had data for each analysis. For t-tests (paired, independent-samples), we meta-analyzed effect size *d*'s (Borenstein et al., 2009). For the paired t-tests comparing predictions to experiences, *d*'s were computed

using the average of the before and after standard deviations, as suggested by Cumming (2013, p. 291). We conducted the meta-analyses using a random-effects model in Cumming's meta-analysis module in the Exploratory Software for Confidence Intervals. For correlations, we meta-analyzed Fisher-transformed correlations, and converted them back to Pearson correlations for presentation (Goh et al., 2016). We use a fixed-effects model, since the sample size was substantially larger in one study (field-2) than the others. We report significance based on Stouffer's Z test.

The data file (with data from all seven studies), analysis script (in R), and calculations for the meta-analyses (in Excel) can be found on OSF: https://osf.io/75z24/.

Results

What fears do people have? How do they compare in relative strength?

Means and standard deviations for each measure for each study are reported in Table 2. Paired t-tests comparing the fear composites to each other reveal that people are more worried about their own conversation enjoyment than they are about their own conversational ability, and are more worried about their own conversational ability than they are about not liking their partner (see Table 3; control-all dataset). Similarly, they are more worried about their partner not enjoying the conversation than they are about their partner's lack of conversational ability. There is no difference between worries about the partner's lack of conversational ability and worries about the partner not liking oneself.

We also compared people's worries about/for themselves to their worries about their partner.[4] People are more worried about their partner not enjoying the conversation than they are about not enjoying the conversation themselves, and are more worried about their partner not liking them than they are about not liking their partner (see Table 4; control-all dataset). There is no difference between worries about their partner's conversational ability and worries about their own conversational ability.

All of the fear composites are significantly inter-correlated (see Table 5; control-all dataset).[5] The correlations fall between .15 and .72, suggesting that the composites tap into different types of worries. The two largest correlations suggest that people who predict having more conversational ability also predict enjoying the conversation more, and expect their partners to like them more.

Do people's personality traits affect their fears about engaging in conversations with strangers? The data reveals that people who have fewer worries before talking to a stranger are generally those who are lower in interaction anxiety and shyness, and higher in social self-esteem and social curiosity (see Table S5). They are also happier, and tend to be higher in openness, conscientiousness, and extraversion, and lower in neuroticism; the correlation with agreeableness is not significant. There are no gender differences in any of the fear composites in any of the studies (with the single exception of partner's conversational ability in the field-tips study).

Table 3. Paired t-tests comparing fear composites within study, within targets (control-all dataset).

Study	Own convo enj vs. Own convo ability	Own convo ability vs. Liking of partner	Partner's convo enj vs. Partner's convo ability	Partner's convo ability vs. Partner's liking of oneself
Online-vignette	$t(149) = 1.84$, mean diff = 0.10, $CI_{95} = [-0.01, 0.21]$	$t(149) = 4.84^{***}$, mean diff = 0.41, $CI_{95} = [0.24, 0.58]$	$t(149) = 3.76^{***}$, mean diff = 0.31, $CI_{95} = [0.15, 0.47]$	$t(149) = -3.25^{**}$, mean diff = −0.30, $CI_{95} = [-0.48, -0.12]$
Lab-confederate	$t(77) = 3.29^{**}$, mean diff = 0.26, $CI_{95} = [0.10, 0.42]$	$t(77) = 3.30^{**}$, mean diff = 0.44, $CI_{95} = [0.17, 0.70]$	n/a	$t(77) = 3.10^{**}$, mean diff = 0.41, $CI_{95} = [0.15, 0.67]$
Lab-intervention	$t(55) = 1.74$, mean diff = 0.17, $CI_{95} = [-0.03, 0.36]$	$t(55) = 4.74^{***}$, mean diff = 0.91, $CI_{95} = [0.52, 1.29]$	$t(55) = -0.06$, mean diff = −0.01, $CI_{95} = [-0.44, 0.41]$	$t(55) = 2.91^{**}$, mean diff = 0.55, $CI_{95} = [0.17, 0.93]$
Field-1	$t(194) = 8.54^{***}$, mean diff = 0.36, $CI_{95} = [0.27, 0.44]$	n/a	$t(194) = 1.09$, mean diff = 0.11, $CI_{95} = [-0.09, 0.30]$	$t(194) = 2.92^{**}$, mean diff = 0.25, $CI_{95} = [0.08, 0.41]$
Field-2	$t(1454) = 17.76^{***}$, mean diff = 0.32, $CI_{95} = [0.29, 0.36]$	n/a	$t(1442) = 9.08^{***}$, mean diff = 0.32, $CI_{95} = [0.25, 0.39]$	$t(1451) = -5.94^{***}$, mean diff = −0.19, $CI_{95} = [-0.25, -0.13]$
Field-tips	$t(68) = 6.25^{***}$, mean diff = 0.44, $CI_{95} = [0.30, 0.58]$	n/a	$t(68) = -0.48$, mean diff = −0.08, $CI_{95} = [-0.39, 0.24]$	$t(68) = 2.47^{*}$, mean diff = 0.42, $CI_{95} = [0.08, 0.76]$
Workshop	$t(33) = 0.53$, mean diff = 0.06, $CI_{95} = [-0.17, 0.29]$	$t(33) = 2.84^{**}$, mean diff = 0.63, $CI_{95} = [0.18, 1.07]$	n/a	$t(33) = 0.77$, mean diff = 0.21, $CI_{95} = [-0.34, 0.76]$
Meta-analysis	**d= 0.28, CI_{95} = [0.18, 0.38]**	**d= 0.52, CI_{95} = [0.35, 0.69]**	**d= 0.14, CI_{95} = [0.001, 0.29]**	$d = 0.15$, $CI_{95} = [-0.07, 0.37]$

$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$. Significant meta-analyses are marked in bold.

How do these fears relate to talking behavior?

In some studies, we had measures of people's actual talking behavior. People who reported that it was more normal for them to talk to strangers reported fewer worries on all the fear composites, with the exception of fears about the partner's conversational ability (see Table 6; control-all dataset).

With respect to the number of conversations that people had with strangers in the previous week, it is important to be cautious when drawing conclusions since only 16 people completed this question in the workshop study, which was one of only two studies that included this measure. Further, the measure was assessed categorically (with only four categories), rather than continuously, making Pearson correlation a statistically questionable choice of analysis. Nevertheless, people who reported having had more conversations with strangers in the past week reported lower worries on all the composites that we were able to analyze (own conversation enjoyment, own conversational ability, partner's liking of oneself), with the exception of fears about the partner's conversational ability (i.e., the same as with the previous behavioral measure).

In one study, we provided participants with an opportunity to talk to a stranger (see "Can we reduce people's fears?" section for more details). Compared to people who chose not to talk, people who chose to talk expected to like their partner more, $t(54) = -2.37$, $p = .02$, $CI_{95} = [-1.52, -0.13]$, $d = .65$, expected their partner to have greater conversational ability, $t(54) = -2.41$, $p = .02$, $CI_{95} = [-1.62, -0.15]$, $d = .66$, and expected their partner to like them more, $t(54) = -1.91$, $p = .06$, $CI_{95} = [-1.23, 0.03]$, $d = .53$ (control-all dataset). There were no differences between groups in predictions of their own or their partner's conversation enjoyment, or their own conversational ability, t's < 1.04, p's > .30, d's < .29.

Table 4. Paired t-tests comparing fear composites within study, between targets (control-all dataset).

Study	Own convo enjoyment vs. Partner's convo enjoyment	Liking of partner vs. Partner's liking of oneself	Own convo ability vs. Partner's convo ability
Online-vignette	$t(149) = 1.53$, mean diff = 0.16, $CI_{95} = [-0.05, 0.36]$	$t(149) = 3.52^{***}$, mean diff = 0.41, $CI_{95} = [0.18, 0.65]$	$t(149) = -1.97$, mean diff = −0.24, $CI_{95} = [-0.48, 0.001]$
Lab-confederate	n/a	$t(77) = 1.63$, mean diff = 0.24, $CI_{95} = [-0.05, 0.53]$	$t(77) = 0.40$, mean diff = 0.06, $CI_{95} = [-0.26, 0.39]$
Lab-intervention	$t(55) = 4.28^{***}$, mean diff = 0.50, $CI_{95} = [0.27, 0.73]$	$t(55) = 2.20^{*}$, mean diff = 0.45, $CI_{95} = [0.04, 0.85]$	$t(54) = -0.74$, mean diff = −0.17, $CI_{95} = [-0.62, 0.29]$
Field-1	$t(194) = 2.47^{*}$, mean diff = 0.10, $CI_{95} = [0.02, 0.17]$	n/a	$t(194) = 0.67$, mean diff = 0.07, $CI_{95} = [-0.14, 0.29]$
Field-2	$t(1486) = 11.97^{***}$, mean diff = 0.23, $CI_{95} = [0.20, 0.27]$	n/a	$t(1448) = -6.49^{***}$, mean diff = −0.26, $CI_{95} = [-0.34, -0.18]$
Field-tips	$t(68) = 0.91$, mean diff = 0.09, $CI_{95} = [-0.11, 0.30]$	n/a	$t(68) = 3.70^{***}$, mean diff = 0.67, $CI_{95} = [0.31, 1.04]$
Workshop	n/a	$t(33) = 2.60^{*}$, mean diff = 0.59, $CI_{95} = [0.13, 1.05]$	$t(33) = -0.75$, mean diff = −0.21, $CI_{95} = [-0.77, 0.35]$
Meta-analysis	**d= 0.22, CI_{95} = [0.08, 0.36]**	**d= 0.32, CI_{95} = [0.20, 0.43]**	$d = -0.01$, $CI_{95} = [-0.18, 0.16]$

$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$. Significant meta-analyses are marked in bold.

Considered together, there is evidence that scores on the fear composites predict actual talking behavior.

Are these fears accurate?

In all of our studies, participants reported their predictions, actually had a conversation with a stranger (or at least the opportunity to have a conversation; except in the online-vignette study), and then reported their experiences. Meta-analyses show that, across all six composite variables, people are significantly more worried than is warranted (meta-analytic *d*'s range from .79 to 1.57, which are all large effects; see Table 2; control-talkers dataset).

Conversations with strangers not only go better than expected, but generally go quite well. One-sample t-tests comparing each composite variable to the scale midpoint reveal that after their conversations, people score lower than the midpoint (i.e., have lower fears) for every composite in every study (with the exception of partner's conversation enjoyment in the field-tips study, which is marginally significant). Indeed, the composite scores are at or below the midpoint for the vast majority of conversations: 76% of own conversation enjoyment scores; 100% of interpersonal liking scores; 89% of own conversational ability scores; 84% of partner's conversation enjoyment scores; 98% of partner's liking scores; 87% of partner's conversational ability scores.

Table 5. Correlations between fear composites (control-all dataset).

Fear composite	Study	Liking of partner	Own convo ability	Partner's convo enjoyment	Partner's liking of oneself	Partner's convo ability
Own conversation enjoyment	Meta:	***r*= .50*** *r*(148) = 0.57*** *r*(76) = 0.58*** *r*(54) = 0.17 n/a n/a n/a *r*(32) = 0.44**	***r*= .72*** *r*(148) = 0.78*** *r*(76) = 0.70*** *r*(54) = 0.65*** *r*(193) = 0.78***r*(1453) = 0.70*** *r*(67) = 0.84*** *r*(32) = 0.67***	***r*= .54*** *r*(148) = 0.61*** n/a *r*(54) = 0.39** *r*(193) = 0.48*** *r*(1491) = 0.54*** *r*(67) = 0.57*** n/a	***r*= .66*** *r*(148) = 0.65*** *r*(76) = 0.72*** *r*(54) = 0.37** *r*(193) = 0.65*** *r*(1453) = 0.66*** *r*(67) = 0.79*** *r*(32) = 0.69***	***r*= .33*** *r*(148) = 0.49*** *r*(76) = 0.54*** *r*(54) = 0.53*** *r*(193) = 0.37*** *r*(1450) = 0.28*** *r*(67) = 0.40*** *r*(32) = 0.33
	lab-confederate:					
	lab-intervention:					
	field-1:					
	field-2:					
	field-tips:					
	workshop:					
Liking of partner	Meta:		***r*= .39*** *r*(148) = 0.45*** *r*(76) = 0.46*** *r*(54) = 0.21 n/a n/a n/a *r*(32) = 0.23	***r*= .20*** *r*(148) = 0.29*** n/a *r*(54) = −0.06 n/a n/a n/a n/a	***r*= .36*** *r*(148) = 0.28*** *r*(76) = 0.43*** *r*(54) = 0.46*** n/a n/a n/a *r*(32) = 0.42*	***r*= .31*** *r*(148) = 0.32*** *r*(76) = 0.30** *r*(54) = 0.38** n/a n/a n/a *r*(32) = 0.21
	lab-confederate:					
	lab-intervention:					
	field-1:					
	field-2:					
	field-tips:					
	workshop:					
Own convo ability	Meta:			***r*= .38*** *r*(148) = 0.61*** n/a *r*(54) = 0.16 *r*(193) = 0.38*** *r*(1444) = 0.35*** *r*(67) = 0.51*** n/a	***r*= .69*** *r*(148) = 0.59*** *r*(76) = 0.71*** *r*(54) = 0.46*** *r*(193) = 0.72*** *r*(1453) = 0.70*** *r*(67) = 0.79*** *r*(32) = 0.64***	***r*= .33*** *r*(148) = 0.44*** *r*(76) = 0.37*** *r*(54) = 0.43*** *r*(193) = 0.36*** *r*(1450) = 0.32*** *r*(67) = 0.28* *r*(32) = 0.14
	online-vignette:					
	lab-confederate:					
	lab-intervention:					
	field-1:					
	field-2:					
	field-tips:					
	workshop:					
Partner's conversation enjoyment	Meta:				***r*= .43*** *r*(148) = 0.75*** n/a *r*(54) = 0.12 *r*(193) = 0.34*** *r*(1444) = 0.41*** *r*(67) = 0.50*** n/a	***r*= .15*** *r*(148) = 0.63*** n/a *r*(54) = 0.03 *r*(193) = 0.09 *r*(1441) = 0.10*** *r*(67) = 0.15 n/a
	online-vignette:					
	lab-confederate:					
	lab-intervention:					
	field-1:					
	field-2:					
	field-tips:					
	workshop:					
Partner's liking of oneself	Meta:					***r*= .36*** *r*(148) = 0.50*** *r*(76) = 0.38*** *r*(54) = 0.39*** *r*(193) = 0.40*** *r*(1450) = 0.34*** *r*(67) = 0.31** *r*(32) = −0.02
	online-vignette:					
	lab-confederate:					
	lab-intervention:					
	field-1:					
	field-2:					
	field-tips:					
	workshop:					

*$p < .05$; **$p < .01$; ***$p < .001$. Significant meta-analyses are marked in bold.

Table 6. Correlations between fear composites and measures of talking behavior (control-all dataset).

Fear composite	Study	Normal for you	# of conversations in past week
Own conversation enjoyment	Meta:	***r*= −.38*** **	***r*= −.19***
	lab-confederate:	*r*(76) = −0.42***	*r*(191) = −0.19**
	lab-intervention:	*r*(54) = −0.24	*r*(14) = −0.12
	field-1:	*r*(193) = −0.47***	
	workshop:	*r*(43) = −0.003	
Liking of partner	Meta:	***r*= −.19***	n/a
	lab-confederate:	*r*(76) = −0.29**	n/a
	lab-intervention:	*r*(54) = −0.04	*r*(13) = −0.27
	field-1:	n/a	
	workshop:	n/a	
Own conversational ability	Meta:	***r*= −.38*** **	***r*= −.23*** **
	lab-confederate:	*r*(76) = −0.39***	*r*(191) = −0.23**
	lab-intervention:	*r*(54) = −0.20	*r*(13) = −0.15
	field-1:	*r*(193) = −0.42***	
	workshop:	n/a	
Partner's conversation enjoyment	Meta:	***r*= −.43*** **	n/a
	lab-confederate:	n/a	*r*(191) = −0.28***
	lab-intervention:	*r*(54) = −0.44***	n/a
	field-1:	*r*(193) = −0.43***	
	workshop:	n/a	
Partner's liking of oneself	Meta:	***r*= −.28*** **	***r*= −.16***
	lab-confederate:	*r*(76) = −0.24*	*r*(191) = −0.14
	lab-intervention:	*r*(54) = −0.24	*r*(13) = −0.42
	field-1:	*r*(193) = −0.30***	
	workshop:	n/a	
Partner's conversational ability	Meta:	*r* = −.11	*r* = −0.05
	lab-confederate:	*r*(76) = −0.20	*r*(191) = 0.05
	lab-intervention:	*r*(54) = −0.03	*r*(13) = −0.02
	field-s1:	*r*(193) = −0.09	
	workshop:	n/a	

*$p < .05$; **$p < .01$; ***$p < .001$. Significant meta-analyses are marked in bold.

Can we reduce people's fears? If so, does this affect how the conversation goes?

We tested two interventions that targeted people's expectations about talking to strangers. First, we targeted feelings of conversational ability, by providing people with tips on how to start a conversation with a stranger; when the authors are asked about their research on talking to strangers, people often ask for tips on how to carry out conversations with strangers. In two studies, participants either received tips or not,[6] and then reported their expectations for an upcoming conversation with a stranger.[7] People who received tips predicted that they and their partner would enjoy the conversation more (meta-analytic $d_{own\ enj} = 0.16$, CI_{95} [0.01, 0.31]; $d_{partner's\ enj} = 0.20$, CI_{95} [0.08, 0.33]), but the tips did not affect any other fear composites before the conversation (see Table 7; full dataset). There were no differences between the experiences of people who did and did not receive tips.

Second, we tested an intervention that simultaneously targeted conversation enjoyment, interpersonal liking and conversational ability, by asking people to have one conversation with a stranger, and then make predictions about a future conversation with another stranger. Assuming that people have a pleasant conversation with the first person, which our data suggest is likely to be the case, it seems plausible that people would expect to enjoy future conversations more, expect to like their partners more, and

Table 7. Results of tips intervention (full dataset).

Fear composite		Lab-intervention $n = 60$; $n = 51$	Field-tips $n = 69$; $n = 76$	Meta-analysis
Own conversation enjoyment	Before: no tips; tips	3.26 (0.73); 3.04 (1.02)	3.09 (1.02); 3.01 (0.88)	
	After: no tips; tips	2.99 (0.84); 2.78 (1.13)	2.21 (1.00); 2.17 (0.88)	
	Tips vs. no tips, before	$t(104) = 1.25$	$t(143) = 0.52$	**d= 0.16, CI_{95} = [0.01, 0.31]**
	Tips vs. no tips, after	$t(70) = 1.34$	$t(142) = 0.23$	$d = 0.16$, CI_{95} = [−0.11, 0.43]
Liking of partner	Before: no tips; tips	2.18 (1.31); 2.20 (1.33)		
	After: no tips; tips			
	Tips vs. no tips, before	$t(104) = -0.07$		
	Tips vs. no tips, after			
Own conversational ability	Before: no tips; tips	3.09 (0.92); 2.90 (1.11)	2.65 (1.06); 2.68 (0.94)	
	After: no tips; tips	2.80 (1.00); 2.72 (1.21)	1.55 (0.75); 1.76 (0.75)	
	Tips vs. no tips, before	$t(104) = 0.98$	$t(142) = -0.14$	$d = 0.08$, CI_{95} = [−0.13, 0.29]
	Tips vs. no tips, after	$t(70) = 0.70$	$t(142) = -1.65$	$d = -0.06$, CI_{95} = [−0.49, 0.37]
Partner's conversation enjoyment	Before: no tips; tips	3.13 (0.79); 3.02 (0.82)	3.20 (0.83); 2.97 (0.91)	
	After: no tips; tips	2.97 (0.86); 2.90 (0.86)	2.72 (1.17); 1.66 (0.86)	
	Tips vs. no tips, before	$t(104) = 0.67$	$t(143) = 1.58$	**d= 0.20, CI_{95} = [0.08, 0.33]**
	Tips vs. no tips, after	$t(70) = 0.63$	$t(142) = 0.61$	$d = 0.12$, CI_{95} = [−0.02, 0.25]
Partner's liking of oneself	Before: no tips; tips	2.59 (1.16); 2.76 (1.32)	2.85 (1.25); 2.71 (1.15)	
	After: no tips; tips	2.57 (1.28); 2.84 (1.48)	1.49 (0.82); 2.22 (0.80)	
	Tips vs. no tips, before	$t(104) = -0.71$	$t(142) = 0.71$	$d = 0.01$, CI_{95} = [−0.26, 0.25]
	Tips vs. no tips, after	$t(70) = 0.20$	$t(142) = -1.24$	$d = -0.09$, CI_{95} = [−0.34, 0.15]
Partner's conversational ability	Before: no tips; tips	3.14 (1.39); 3.11 (1.41)	3.27 (1.14); 3.16 (1.11)	
	After: no tips; tips	2.90 (1.31); 2.90 (1.21)	1.70 (1.36); 1.81 (1.27)	
	Tips vs. no tips, before	$t(104) = 0.09$	$t(142) = 0.58$	$d = 0.06$, CI_{95} = [−0.06, 0.19]
	Tips vs. no tips, after	$t(70) = 0.30$	$t(141) = -0.49$	$d = -0.03$, CI_{95} = [−0.17, 0.12]

For each composite variable for each study, we report: the mean and standard deviation for the tips and no tips conditions; a t-test comparing the predictions for each condition (i.e., before the conversation; none were statistically significant); a t-test comparing the experiences for each condition (i.e., after the conversation; none were statistically significant). In the lab-intervention study, there were no experiences reported, so the "after" t-test looks instead at predictions made about a future conversation, which were made after the conversation. Significant meta-analyses are marked in bold.

feel greater ability to talk to strangers. In four studies, after having a conversation with a stranger (or multiple conversations with strangers in field-1), participants reported their expectations for another conversation with a stranger: a hypothetical conversation in the lab-confederate, field-1, and field-2 studies, and an ostensibly real conversation in the lab-

intervention study. For the lab-intervention study, we only examined people who had not been exposed to the tips intervention (i.e., control-talkers dataset), so we could isolate the impact of the pleasant conversation.

First, we established that participants did, in fact, have a pleasant conversation, by examining the percentage of post-conversation reports that were at or below the scale midpoint. In the lab-confederate study, this constituted 83% of reports of fears about one's own conversation enjoyment, 100% of fears about liking the partner, 92% of fears about one's own conversational ability, 98% of fears about the partner liking them, and 100% of fears about the partner's conversational ability. In the field-1 and field-2 studies, which involved approaching a stranger "in the wild," this constituted 63% of fears about one's own conversation enjoyment, 85% of fears about one's own conversational ability, 90% of fears about the partner's conversation enjoyment, 98% of fears about the partner liking them, and 82% of fears about the partner's conversational ability. Thus, although most people had a pleasant conversation, a few did not, which should limit the effectiveness of the intervention.

After having a pleasant conversation, when participants reported their worries about a future conversation, their worries were significantly lower than they had been before the conversation, on all the composite variables (see Table 8; control-talkers dataset). At first glance, people's worries about a future conversation appear to be well-calibrated with their recent experiences (see the after vs. after predict t-tests in Table 8; the meta-analyzed *d*'s are generally not significant). However, it is important to note that the field-1 study involved multiple conversations with strangers, whereas the other studies (i.e., lab-confederate and field-2) only involved a single conversation. Mini meta-analyses of the single-conversation studies reveal that people's fears about a future conversation are higher than is warranted by their recent experiences (meta-analytic $d_{own\ enj} = -0.64$, CI_{95} [−1.40, 0.11]; $d_{own\ ability} = -0.72$, CI_{95} [−1.45, 0.001]; $d_{partner's\ liking} = -1.45$, CI_{95} [−2.84, −0.06]; $d_{partner's\ ability} = -1.29$, CI_{95} [−1.68, −0.89]). In contrast, in the field-1 study, which involved having *multiple* conversations with strangers, people's fears about a future conversation are lower than their recent experiences would suggest (with the exception of fears about the partner's liking (Table 8)).

Unsurprisingly, predictions about future conversations were generally correlated with post-conversation experiences for the lab-confederate and field-1 studies (see Table 9). The pattern of correlations was similar, but not significant for the field-2 study because of the small subset of participants who completed these predictions. We also examined the extent to which people's predictions about future conversations were related to the gap between their pre-conversation predictions and post-conversation experiences. These results were more complicated to interpret, as the relationship varied across studies, possibly due in part to the fact that people spoke to a single stranger in the lab-confederate and field-2 studies, but had multiple conversations in the field-1 study.[8]

Finally, one study allowed us to examine a behavioral outcome. In the lab-intervention study, participants were told that they would be talking to a person who was sitting in the next room, received a manipulation (or not), and reported predictions about how that conversation would go. The manipulation targeted partner's conversation enjoyment (the experimenter said that other participant had been waiting a while and would be happy to have someone to talk to), partner's liking (the experimenter said that the other person was similar to them: a fellow student), and own conversational ability (the experimenter

Table 8. Results of pleasant conversation intervention (control-talkers dataset).

Fear composite		Lab-confederate $N = 78$	Lab-intervention $N = 37$	Field-1 $N = 198$	Field-2 $N = 20$	Meta-analysis
Own conversation enjoyment	Before M (SD)	3.32 (0.94)	3.33 (0.62)	2.95 (0.89)	3.41 (0.86)	
	After M (SD)	1.86 (1.04)	n/a	2.62 (0.92)	1.89 (0.78)	
	After, predict M (SD)	2.18 (1.13)	2.95 (0.77)	2.29 (1.10)	2.99 (0.88)	
	Before vs. after predict	$t(76) = 10.73^{***}$	$t(34) = 3.30^{**}$	$t(194) = 8.36^{***}$	$t(19) = 2.70^{*}$	**d= 0.67, CI_{95} = [0.36, 0.97]**
	After vs. after predict	$t(76) = -3.68^{***}$	n/a	$t(197) = 5.33^{***}$	$t(19) = -5.12^{***}$	$d = -0.30$, CI_{95} = [−0.94, 0.34]
Liking of partner	Before M (SD)	2.62 (1.29)	2.49 (1.27)			
	After M (SD)	0.80 (0.30)	n/a			
	After, predict M (SD)	1.45 (0.92)	n/a			
	Before vs. after predict	$t(75) = 8.21^{***}$	n/a			
	After vs. after predict	$t(75) = -6.30^{***}$	n/a			
Own conversational ability	Before M (SD)	3.05 (0.85)	3.09 (0.94)	2.59 (0.88)	3.31 (0.82)	
	After M (SD)	1.60 (0.80)	n/a	2.20 (0.75)	1.69 (0.81)	
	After, predict M (SD)	1.96 (1.00)	2.85 (1.03)	1.94 (0.92)	2.74 (0.95)	
	Before vs. after predict	$t(77) = 12.53^{***}$	$t(34) = 2.52^{*}$	$t(194) = 9.33^{***}$	$t(19) = 4.47^{***}$	**d= 0.64, CI_{95} = [0.24, 1.04]**
	After vs. after predict	$t(77) = -4.43^{***}$	n/a	$t(197) = 5.41^{***}$	$t(19) = -5.39^{***}$	$d = -0.37$, CI_{95} = [−1.05, 0.32]
Partner's conversation enjoyment	Before M (SD)		3.14 (0.85)	2.82 (0.84)	3.39 (0.92)	
	After M (SD)		n/a	n/a	2.07 (0.95)	
	After, predict M (SD)		2.89 (0.77)	n/a	n/a	
	Before vs. after predict		$t(34) = 1.28$	n/a	n/a	
	After vs. after predict		n/a	n/a	n/a	
Partner's liking of oneself	Before M (SD)	2.86 (1.15)	2.81 (1.21)	2.47 (0.97)	3.73 (1.04)	
	After M (SD)	1.16 (0.55)		1.68 (0.69)	1.33 (0.57)	
	After, predict M (SD)	1.84 (1.08)	2.80 (1.25)	1.91 (0.99)	3.07 (0.95)	
	Before vs. after predict	$t(77) = 9.00^{***}$	$t(34) = 0.29$	$t(194) = 7.20^{***}$	$t(19) = 3.58^{**}$	**d= 0.41, CI_{95} = [0.02, 0.81]**
	After vs. after predict	$t(77) = -7.00^{***}$	n/a	$t(197) = -3.84^{***}$	$t(19) = -7.98^{***}$	**d= −0.95, CI_{95} = [−1.63, −0.27]**
Partner's conversational ability	Before M (SD)	3.27 (0.92)	3.47 (1.19)	2.72 (1.15)	3.79 (0.74)	
	After M (SD)	1.03 (0.47)	n/a	2.36 (0.97)	1.50 (1.11)	
	After, predict M (SD)	2.14 (1.27)	3.09 (1.20)	2.24 (1.15)	2.93 (0.89)	
	Before vs. after predict	$t(77) = 7.84^{***}$	$t(34) = 1.80$	$t(194) = 4.48^{***}$	$t(19) = 4.19^{***}$	**d= 0.47, CI_{95} = [0.09, 0.84]**
	After vs. after predict	$t(77) = -7.53^{***}$	n/a	$t(196) = 1.49$	$t(19) = -4.73^{***}$	$d = -0.86$, CI_{95} = [−1.92, 0.20]

$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$. For each fear composite for each study, we report: the mean and standard deviation before and after the conversation, and for a prediction about a future conversation, made after the conversation; a t-test comparing the predictions before the conversation to the predictions after the conversation; a t-test comparing the experiences after the conversation to the predictions after the conversation. In the lab-intervention study, there were no experiences reported. In the field-2 study, only a subset of the participants completed the prediction measures, and we have reported the descriptives just for this subset of participants. Significant meta-analyses are marked in bold.

Table 9. Correlations between predicted fears following a pleasant conversation intervention, and both experiences, and the gap between original predictions and experiences (control-talkers dataset).

Fear composite: Predictions about a future conversation		Experiences			Gap between original predictions and experiences		
		Lab-confederate $N = 78$	Field-1 $N = 198$	Field-2 $N = 20$	Lab-confederate $N = 78$	Field-1 $N = 198$	Field-2 $N = 20$
Own convo enjoyment	Own convo enjoyment	$r(75) = .77^{***}$	$r(196) = .64^{***}$	$r(18) = .34$	$r(75) = -.21$	$r(193) = -.26^{***}$	$r(18) = .36$
	Liking of partner	$r(75) = .22$	n/a	n/a	$r(75) = .31^{**}$	n/a	n/a
	Own convo ability	$r(75) = .65^{***}$	$r(196) = .66^{***}$	$r(18) = .35$	$r(75) = -.05$	$r(193) = -.23^{**}$	$r(18) = .38$
	Partner's convo enjoyment	n/a	n/a	$r(18) = .35$	n/a	n/a	$r(18) = .18$
	Partner's liking of oneself	$r(75) = .45^{***}$	$r(196) = .38^{***}$	$r(18) = .31$	$r(75) = .32^{**}$	$r(193) = .003$	$r(18) = .59^{**}$
	Partner's convo ability	$r(75) = .36^{**}$	$r(195) = .56^{***}$	$r(18) = -.01$	$r(75) = .04$	$r(192) = -.33^{***}$	$r(18) = .16$
Liking of partner	Own convo enjoyment	$r(74) = .37^{**}$	n/a	n/a	$r(74) = .07$	n/a	n/a
	Liking of partner	$r(74) = .23^{*}$	n/a	n/a	$r(74) = .37^{***}$	n/a	n/a
	Own convo ability	$r(74) = .26^{*}$	n/a	n/a	$r(74) = .16$	n/a	n/a
	Partner's convo enjoyment	n/a	n/a	n/a	n/a	n/a	n/a
	Partner's liking of oneself	$r(74) = .25^{*}$	n/a	n/a	$r(74) = .34^{**}$	n/a	n/a
	Partner's convo ability	$r(74) = .13$	n/a	n/a	$r(74) = .04$	n/a	n/a
Own convo ability	Own convo enjoyment	$r(76) = .58^{***}$	$r(196) = .56^{***}$	$r(18) = .39$	$r(76) = -.14$	$r(193) = -.20^{**}$	$r(18) = .24$
	Liking of partner	$r(76) = .22$	n/a	n/a	$r(76) = .23^{*}$	n/a	n/a
	Own convo ability	$r(76) = .70^{***}$	$r(196) = .70^{***}$	$r(18) = .52$	$r(76) = -.004$	$r(193) = -.19^{**}$	$r(18) = .24$
	Partner's convo enjoyment	n/a	n/a	$r(18) = .27$	n/a	n/a	$r(18) = .28$
	Partner's liking of oneself	$r(76) = .56^{***}$	$r(196) = .46^{***}$	$r(18) = .27$	$r(76) = .29^{*}$	$r(193) = .05$	$r(18) = .49^{*}$
	Partner's convo ability	$r(76) = .36^{**}$	$r(195) = .54^{***}$	$r(18) = -.15$	$r(76) = .04$	$r(192) = -.31^{***}$	$r(18) = .24$
Partner's convo enjoyment	Not assessed in any of these studies	n/a	n/a	n/a	n/a	n/a	n/a
Partner's liking of oneself	Own convo enjoyment	$r(76) = .57^{***}$	$r(196) = .46^{***}$	$r(18) = .09$	$r(76) = -.08$	$r(193) = -.23^{**}$	$r(18) = .57^{**}$
	Liking of partner	$r(76) = .30^{**}$	n/a	n/a	$r(76) = .29^{**}$	n/a	n/a
	Own convo ability	$r(76) = .61^{***}$	$r(196) = .59^{***}$	$r(18) = .18$	$r(76) = -.01$	$r(193) = -.23^{**}$	$r(18) = .44$
	Partner's convo enjoyment	n/a	n/a	$r(18) = .01$	n/a	n/a	$r(18) = .30$
	Partner's liking of oneself	$r(76) = .61^{***}$	$r(196) = .57^{***}$	$r(18) = .26$	$r(76) = .32^{**}$	$r(193) = -.04$	$r(18) = .57^{**}$
	Partner's convo ability	$r(76) = .43^{***}$	$r(195) = .41^{***}$	$r(18) = -.05$	$r(76) = .02$	$r(192) = -.34^{***}$	$r(18) = .13$
Partner's convo ability	Own convo enjoyment	$r(76) = .58^{***}$	$r(196) = .41^{***}$	$r(18) = .17$	$r(76) = -.14$	$r(193) = -.22^{**}$	$r(18) = .25$
	Liking of partner	$r(76) = .09$	n/a	n/a	$r(76) = .29^{**}$	n/a	n/a
	Own convo ability	$r(76) = .47^{***}$	$r(196) = .48^{***}$	$r(18) = .09$	$r(76) = .04$	$r(193) = -.28^{***}$	$r(18) = .22$
	Partner's convo enjoyment	n/a	n/a	$r(18) = -.12$	n/a	n/a	$r(18) = .26$
	Partner's liking of oneself	$r(76) = .36^{**}$	$r(196) = .27^{***}$	$r(18) = -.07$	$r(76) = .20$	$r(193) = -.06$	$r(18) = .68^{**}$
	Partner's convo ability	$r(76) = .09$	$r(195) = .52^{***}$	$r(18) = .10$	$r(76) = .28^{*}$	$r(192) = -.23^{**}$	$r(18) = .15$

$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$. The lab-intervention study does not have data on experiences after the conversation, so cannot be included in these analyses.

provided tips on how to start the conversation). The experimenter started to escort the participant to the stranger's room, but then feigned having forgotten some papers in another room, and asked the participant to sit in a corridor while they retrieved the papers. A confederate entered, thus providing the participant with an opportunity to talk. Participants who received the manipulation were somewhat more likely (71%) than participants who did not receive the manipulation (62%) to start a conversation with the confederate, $t(109) = -0.98$, $p = .33$, $d = .19$ (full dataset). In a previous study using a similar design, only 20% of people took the opportunity to talk. In the debriefing for that study, several participants said they had not talked because they had not been sure if they were allowed to talk. As a result, in this study the experimenter explicitly gave the participant permission to talk to the confederate, which appears to have had the opposite outcome: the majority of participants in both conditions talked.

Discussion

We meta-analyzed seven studies to examine the fears that people have about talking to strangers. People's worries about not enjoying the conversation, not liking their partner, and not being able to carry out the conversation, as well as their worries about their partner not enjoying the conversation, not liking them, and not being able to carry out the conversation were all inter-correlated, and related to actual talking behavior. A comparison of pre-conversation predictions to post-conversation experiences revealed that all of people's fears were vastly overblown. An attempt to decrease fears by providing people with conversation tips was not very successful, but people made rosier predictions about future conversations immediately after having experienced a pleasant conversation.

The fears that we identified appear to have predictive validity: we found that they were correlated with participants' reports about how normal it is for them to talk to strangers, with reports of the number of strangers they had talked to in the past week, and with taking advantage of an opportunity to talk during a lab study. These relationships provide hope that interventions that reduce fears could make people more likely to talk to strangers, but there is not yet experimental evidence of this. Also, there are surely factors other than internal worries that play a role in whether or not people talk to strangers. For example, one's daily habits can present external barriers; if a person works from home, or drives to work alone and sits in meetings all day, there may be limited opportunities to talk to strangers. Even if a person commutes using public transport, and thus is exposed to opportunities to talk to strangers, social norms pose a barrier to talking; everyone in London knows that the rules are that one does not talk on the Tube. The built environment can also present barriers to talking; urban designers are being challenged to design neighborhoods for more social interaction, to reduce the societal costs of the so-called "loneliness epidemic" (Williams, 2005). One way to prompt more spontaneous conversations is to increase the proximity between people, but this can feel invasive. Semi-private spaces and buffer zones (e.g., gardens and verandas) can help, as can shared pathways to parking, and local facilities.

When comparing people's predictions before talking to a stranger to people's experiences reported after talking to a stranger, we found strong evidence that people's fears

are overblown. These results are consistent with past research, which has found that people underestimate how much they will enjoy talking to a stranger, how interested a stranger will be in talking to them, and how much a stranger will like them (Boothby, Cooney et al., 2018; Epley & Schroeder, 2014). The current research extends these findings by examining a broader set of fears. We examined not only people's fear that they will not enjoy the conversation, but also their fear that their partner will not enjoy the conversation, and not only people's fear that their partner will not like them, but also their fear that they might not like their partner. Notably, we also included worries about competence: one's own ability, and one's partner's ability to carry out a conversation. People's predictions are inaccurate on all six of the fear composites that we examined. The current results also make a convincing case that, despite the fact that people's predictions are massively inaccurate, when they do talk to strangers, their conversations generally go well; this is consistent with a growing body of research (Epley & Schroeder, 2014; Sandstrom et al., under review; Sandstrom & Dunn, 2014a; but see Quoidbach et al., 2019).

Understanding people's fears about conversations with strangers

The fact that the current study finds generally consistent results across six fear composites could suggest that people simply hold a general fear, rather than worrying about specific aspects of their own attitudes and behavior, their partner's attitudes and behavior, and the conversation. Indeed, the fear composites were all inter-related, suggesting a system in which changes in one type of fear are likely to ripple out to affect others. On the other hand, the fact that the correlations differed substantially in size is one piece of evidence that people do hold more nuanced worries. Further, people distinguished between different fears, worrying more about their own conversation enjoyment than their conversational ability, and worrying more about their partner liking them, than them liking their partner. The difference between predictions and experiences (i.e., the effect size) was twice as large for some fears as compared to others, and the relationship between fears and talking behavior was four times as large for some fears as compared to others. Taken together, the current results argue for the utility of examining a broad range of more specific fears, rather than fear in general.

One open question is the extent to which the fears that people hold differ depending on who the stranger is. In the current studies, the partner was either similar, in terms of being a fellow student (lab-confederate, lab-intervention); explicitly similar in age, ethnicity, and gender (online-vignette); or chosen by the participant (field-1, field-2, field-tips, workshop), in which case they could choose someone they were comfortable talking to. A person with strong political or religious views might predict that a conversation with someone with opposing views will be less enjoyable than a conversation with someone more similar. An able-bodied person might worry more about their ability to talk to someone in a wheelchair as compared to their ability to talk to another able-bodied person; they might worry that they will say the wrong thing, or offend the other person. Further, there may be a set of fears that apply to "talking to strangers" in general, but additional fears that arise when talking to particular kinds of strangers (e.g., worrying about offending someone who is a different ethnicity, or worrying about upsetting

someone who has a mental illness). There is clearly more work to be done to understand between-person and within-person variability in conversational fears.

Reducing people's fears about talking to strangers

We tested whether giving people tips on how to start a conversation would result in them being less worried before talking to a stranger, or in them having a better conversational experience. Interestingly, although this manipulation was intended to target conversational ability, it did not affect either predictions of conversational ability before the conversation, or experiences of conversational ability as reported after the conversation. Perhaps instead of making people feel more capable, the intervention inadvertently primed people to think of their perceived inability. Although in many domains people think they are better than average, people think they are less social than, and have less enriching social lives than others (Deri et al., 2017; Whillans et al., 2017). The liking gap – the tendency to underestimate how much a conversation partner likes you – is mediated by the negativity of one's thoughts about their own conversation performance (Boothby et al., 2018); perhaps our intervention inadvertently drew people's attention to this negative internal voice, thus preventing people from simply reacting naturally to the unfolding conversation.

The second intervention we tested was more successful at lowering people's fears before a conversation with a stranger: after people had a pleasant conversation with one stranger, they made more positive predictions about a subsequent conversation. Perhaps this intervention was more effective because, instead of giving people tools to try, we helped people see for themselves that they already had enough conversational ability to carry out an enjoyable conversation. In thre studies that involved participants having a single conversation, people's predictions about a subsequent conversation were more positive than they had been before the initial conversation, but they were still more negative than warranted by the recent conversational experience. However, in a third study, which involved multiple conversations with strangers over the course of a week, people's predictions about a subsequent conversation were better calibrated with their experiences (see Sandstrom et al., under review, for daily changes in predictions). This is consistent with past research, which found that people who often talk to their taxi driver (vs. people who seldom talk) more accurately predict how much they will enjoy a future conversation with a taxi driver (Epley & Schroeder, 2014). Taken together, these results suggest that perhaps practice does make perfect, and simply having a conversation with a stranger, or ideally multiple conversations with strangers, is capable of shifting a person's fears. This, of course, assumes that the conversations are pleasant, which the current results and past research suggest is usually the case. If someone were to have a single negative conversation with a stranger, it would likely exert an oversize influence on subsequent predictions (Baumeister et al., 2001). Further research is needed to determine the features that lead people to believe a conversation went poorly, and to determine the degree of negativity people must experience in a conversation in order to worsen their fears.

Our results suggest other interventions that could be tested. People worry more that their partner will not enjoy the conversation than they worry that they will not enjoy the

conversation themselves. Additionally, we found that people's worries that their partner would not enjoy the conversation were strongly correlated with past talking behavior. Together, these findings suggest that effective interventions might focus on beliefs about their partner rather than themselves. For example, people could be reminded that talking to a stranger is a prosocial act, because the person that they talk to will benefit from a mood boost and feelings of social connection. The prosocial impact might be even greater if they choose to talk to someone who is likely to be suffering from lack of connection (e.g., someone who looks lonely, someone who is from a group that is traditionally excluded). As with any intervention, this one is likely to shift more than just one type of fear (i.e., more than one of our fear composites); people feel good when they act prosocially (Aknin, Broesch et al., 2015; Aknin, Barrington-Leigh et al., 2013; Aknin, Hamlin et al., 2012), and are generally aware of this (though they often underestimate just how rewarding it will be; Andreoni, 1990; Cialdini et al., 1973), so this intervention may also shift not only fears about the partner's conversation enjoyment, but also a person's own expected conversation enjoyment.

Strengths and limitations

The current research presents results from a mini meta-analysis of seven studies. The study designs ranged from an online vignette study with an imagined conversation, to controlled lab experiments involving a conversation with a confederate, to field experiments involving participants choosing someone to approach. We generally found similar results across this diverse set of studies, though there were some differences. In two studies, when people made predictions about an upcoming conversation with a stranger, that conversation (and conversation partner) was still hypothetical: the online-vignette study, which did not involve an actual conversation, but also the field-2 study, which involved an actual conversation at an indeterminate time in the future, with a yet-to-be selected partner. In these two studies, people were more worried about their partner liking them than they were about their partner's conversational ability, whereas the opposite was true in the other studies, which all involved an imminent conversation. These results emphasize the importance of studying actual rather than hypothetical conversations, and suggest that different fears may take precedence depending on the degree of concreteness with which people are considering talking to strangers.

One strength of the current work is the consideration of several kinds of fears that people might have about talking to strangers. Some of these fears have been examined in past research, but others have been examined here for the first time. By including all of the fear composites in the same study, we have been able to compare them to examine their relative importance as barriers to communication. This is particularly useful when considering which fears pose the biggest barriers to talking to strangers, and thus are most critical to target in interventions.

One limitation of the current project is that it was patently exploratory; we did not pre-register any hypotheses. Instead, we took advantage of a set of studies that included similar measures, and used meta-analysis to look at patterns that emerged across studies. We do not have every fear composite in every study, and we do not have identical items in those composites in each study, but meta-analysis allows us to examine patterns in spite of these inconsistencies.

Another limitation of the current research is that the studies included in the meta-analysis contain only self-report measures. We were able to address questions about which fears are the strongest barriers to communication, to provide evidence that people's fears are overblown, and to test interventions to change people's predictions and experiences of talking to a stranger. But there is a huge difference between placing people in a situation that involves talking to a stranger and improving the predictions they make before that conversation, and changing people's behavior so that they choose to talk to more strangers, more often. It is helpful to know more about the barriers that restrict people from reaching out, and learning how to lower these barriers will certainly not hurt, but further research is needed to test whether doing so will actually change behavior.

Conclusion

As American-in-London Jonathan Dunne discovered, when he tried to encourage people to chat on the Tube, people are often reluctant to talk to strangers. The current mini meta-analysis helps to explain the range and strength of the fears underlying people's reluctance to engage in conversations with strangers, and finds that people are more worried than their experiences warrant.

Notes

1. An alternative would be to z-score each item, but we believe that judging the size of mean differences is more intuitive in original vs. standard deviation units.
2. For the field-1 study, this item (and the corresponding item for partner's conversation enjoyment) was worded with respect to conversations on the first day of the study only, not the set of conversations that participants would have throughout the week-long study.
3. In the workshop study, although both measures were included, they were reported by different subsets of participants, so we cannot report a correlation.
4. These analyses use only "match" items that were included in both the own and partner fear composites. For example, we asked "I will enjoy talking to my conversation partner" and "My conversation partner will enjoy talking to me", so that is a match item. In contrast, we asked "I worry that the conversation will be awkward", but we didn't ask a corresponding question about the partner, so that is not a match item. Match items are indicated in Table S1.
5. The significant meta-analytic correlation between the partner's conversation enjoyment and the partner's conversational ability is driven by one large correlation in an online study that involves an imagined conversation; this particular meta-analytic correlation should be interpreted cautiously.
6. In the lab-intervention study, the intervention involved more than just tips; see paragraph later in this section.
7. There were also tips and no tips conditions in the field-1 study. However, the tips were provided after the main body of fears questions were answered, so we could not assess any impact of the tips on fears. In a separate project, we tested whether there were any differences between groups who received tips or no tips on predicted number of rejections, and predicted difficulty in starting and maintaining a conversation after the first conversation of this multi-day study. There were no differences, so we collapse across condition in the current study, and do not include this study with the other tips interventions.
8. A cautious interpretation of the results suggests that in the field-2 study, when the gap between pre-conversation and post-conversation reports was larger, the predicted fears were

often lower. In contrast, for the lab-confederate and field-2 studies, when the gap between pre-conversation and post-conversation reports was larger, the predicted fears were often higher.

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References

Aknin, L. B., Barrington-Leigh, C. P., Dunn, E. W., Helliwell, J. F., Burns, J., Biswas-Diener, R., Kemeza, I., Nyende, P., Ashton-James, C. E., & Norton, M. I. (2013). Prosocial spending and well-being: Cross-cultural evidence for a psychological universal. *Journal of Personality and Social Psychology*, *104*(4), 635–652. https://doi.org/10.1037/a0031578

Aknin, L. B., Broesch, T., Hamlin, J. K., & Van de Vondervoort, J. W. (2015). Prosocial behavior leads to happiness in a small-scale rural society. *Journal of Experimental Psychology. General*, *144*(4), 788. https://doi.org/10.1037/xge0000082

Aknin, L. B., Hamlin, J. K., & Dunn, E. W. (2012). Giving leads to happiness in young children. *PLoS One*, *7*(6), e39211. https://doi.org/10.1371/journal.pone.0039211

Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warm-glow giving. *The Economic Journal*, *100*(401), 464–477. https://doi.org/10.2307/2234133

Aronson, E. (2012). *The social animal*. Worth.

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*(4), 323–370. https://doi.org/10.1037/1089-2680.5.4.323

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497

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

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

Borenstein, M., Hedges, L. V., Higgins, J., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. Wiley Online Library. http://onlinelibrary.wiley.com/doi/10.1002/9780470743386.refs/summary

Cialdini, R. B., Darby, B. L., & Vincent, J. E. (1973). Transgression and altruism: A case for hedonism. *Journal of Experimental Social Psychology*, *9*(6), 502–516. https://doi.org/10.1016/0022-1031(73)90031-0

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

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

Cumming, G. (2013). *Understanding the new statistics: Effect sizes, confidence intervals, and meta-analysis*. Routledge.

Davidai, S., Deri, S., & Gilovich, T. (2020). There must be more to life than this: The impact of highly-accessible exemplars on self-evaluation and discontent. *Self and Identity*. https://doi.org/10.1080/15298868.2020.1779121

Deri, S., Davidai, S., & Gilovich, T. (2017). Home alone: Why people believe others' social lives are richer than their own. *Journal of Personality and Social Psychology*, *113*(6), 858. https://doi.org/10.1037/pspa0000105

Diener, E., & Seligman, M. E. P. (2002). Very happy people. *Psychological Science*, *13*(1), 81. https://doi.org/10.1111/1467-9280.00415

Dunbar, R. I., & Shultz, S. (2007). Evolution in the social brain. *Science*, *317*(5843), 1344–1347. https://doi.org/10.1126/science.1145463

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

Epley, N., & Schroeder, J. (2019, June 12). The surprising benefits of talking to strangers. *The Guardian*. https://www.bbc.co.uk/news/world-48459940

Goh, J. X., Hall, J. A., & Rosenthal, R. (2016). Mini meta-analysis of your own studies: Some arguments on why and a primer on how. *Social and Personality Psychology Compass*, *10*(10), 535–549. https://doi.org/10.1111/spc3.12267

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

Grierson, J. (2016, September 29). 'Tube chat' campaign provokes horror among London commuters. *The Guardian*. https://www.theguardian.com/uk-news/2016/sep/29/tube-chat-campaign-provokes-horror-among-london-commuters

Gunaydin, G., Oztekin, H., Karabulut, D. H., & Salman-Engin, S. (2020). Minimal Social Interactions with Strangers Predict Greater Subjective Well-Being. Journal of Happiness Studies. https://doi.org/10.1007/s10902-020-00298–6

Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology*, *60*(6), 895–910. https://doi.org/10.1037/0022-3514.60.6.895

Leary, M. R. (1983). Social anxiousness: The construct and its measurement. *Journal of Personality Assessment*, *47*(1), 66–75. https://doi.org/10.1207/s15327752jpa4701_8

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803–855. https://doi.org/10.1037/0033-2909.131.6.803

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, *46*(2), 137–155. https://doi.org/10.1023/A:1006824100041

Mastroianni, A., Gilbert, D. T., Cooney, G., & Wilson, T. D. (forthcoming). Do conversations end when people want them to? *Proceedings of the National Academy of Sciences*.

McCroskey, J. C., & Richmond, V. P. (1982). Communication apprehension and shyness: Conceptual and operational distinctions. *Central States Speech Journal*, *33*(3), 458–468. https://doi.org/10.1080/10510978209388452

Mehl, M. R., Vazire, S., Holleran, S. E., & Clark, C. S. (2010). Eavesdropping on happiness. *Psychological Science*, *21*(4), 539–541. https://doi.org/10.1177/0956797610362675

Milek, A., Butler, E. A., Tackman, A. M., Kaplan, D. M., Raison, C. L., Sbarra, D. A., Vazire, S., & Mehl, M. R. (2018). "Eavesdropping on happiness" revisited: A pooled, multisample replication of the association between life satisfaction and observed daily conversation quantity and quality. *Psychological Science*, *29*(9), 1451–1462. https://doi.org/10.1177/0956797618774252

Quoidbach, J., Taquet, M., Desseilles, M., De Montjoye, Y.-A., & Gross, J. J. (2019). Happiness and social behavior. *Psychological Science*, *30*(8), 1111–1122. https://doi.org/10.1177/0956797619849666

Renner, B. (2006). Curiosity about people: The development of a social curiosity measure in adults. *Journal of Personality Assessment*, *87*(3), 305–316. https://doi.org/10.1207/s15327752jpa8703_11

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

Sandstrom, G. M., & Dunn, E. W. (2014a). Is efficiency overrated? Minimal social interactions lead to belonging and positive affect. *Social Psychological and Personality Science*, *5*(4), 437–442. https://doi.org/10.1177/1948550613502990

Sandstrom, G. M., & Dunn, E. W. (2014b). Social interactions and well-being: The surprising power of weak ties. *Personality & Social Psychology Bulletin*, *40*(7), 910–922. https://doi.org/10.1177/0146167214529799

Savitsky, K., Epley, N., & Gilovich, T. (2001). Do others judge us as harshly as we think? Overestimating the impact of our failures, shortcomings, and mishaps. *Journal of Personality and Social Psychology*, *81*(1), 44. https://doi.org/10.1037/0022-3514.81.1.44

Sun, J., Harris, K., & Vazire, S. (2019). Is well-being associated with the quantity and quality of social interactions? *Journal of Personality and Social Psychology*. No Pagination Specified-No Pagination Specified. https://doi.org/10.1037/pspp0000272

Watson, D., Clark, L. A., McIntyre, C. W., & Hamaker, S. (1992). Affect, personality, and social activity. *Journal of Personality and Social Psychology*, *63*(6), 1011–1025. https://doi.org/10.1037/0022-3514.63.6.1011

Whillans, A. V., Christie, C. D., Cheung, S., Jordan, A. H., & Chen, F. S. (2017). From misperception to social connection: Correlates and consequences of overestimating others' social connectedness. *Personality & Social Psychology Bulletin*, *43*(12), 1696–1711. https://doi.org/10.1177/0146167217727496

Williams, J. (2005). Designing neighbourhoods for social interaction: The case of cohousing. *Journal of Urban Design*, *10*(2), 195–227. https://doi.org/10.1080/13574800500086998