Men and women's plans for romantic initiation strategies across four settings

Susan Sprecher[1] · Stanislav Treger[2] · Nicole Landa[3]

Abstract

This study, with a sample ($N = 735$) of both university students and non-student adults, examined the various strategies that men and women believe they would use to initiate romantic contact with an attractive other in four different settings: social gathering, bar/nightclub, class/workplace, and Facebook. We found that men to a greater degree than women reported they would use direct approaches (e.g., initiate a conversation) and women to a greater degree than men reported they would use the indirect strategy of having a friend introduce them and the passive strategy of waiting for the other to do something. Men's greater expectation of being direct in relationship initiation (relative to women) was found across the settings. Shyness was associated with the lower likelihood of expecting to be direct in initiation strategies, although the strength of the association was stronger for men than for women and depended on both the particular initiation strategy and the setting. The findings offer insights into the dynamics of relationship development and how plans for initiation strategies may differ for men and women, including the differential influence of shyness on romantic initiation for men and women.

Keywords Relationship initiation strategies · Relationship initiation · Gender differences · Shyness

In the U.S. and many other societies today, young adults engage in relationship initiation stage many times before they potentially settle into a long-term relationship. Although relationship initiation is often associated with a first date or the first time two people consider themselves in a relationship, relationship initiation begins before these steps (Perlman 2008). For example, in Levinger's (1980) classic model of relationship development, the first stage of relationship development is *awareness*—a person becomes aware of the potential target of attraction. The next stage is *surface contact,* during which the two people first communicate with each other, often engaging in small talk. If positive impressions are formed during surface contact, the relationship may then advance to a degree of mutuality (see also the stage model of Knapp 1978).

Many potential relationships that reach the awareness stage never advance to surface contact or mutuality stages, because one or both potential partners fear risk of rejection and embarrassment, believe (sometimes incorrectly) that the other is not interested (Sprecher and McKinney 1987; Vorauer et al. 2003; Vorauer and Ratner 1996), feel uncomfortable with the uncertainty inherent in initial interactions (Berger 1979; Berger and Calabrese 1975; Knobloch and Miller 2008), or believe that it is inappropriate for them to take the first steps. For example, women have traditionally been discouraged from being direct in relationship initiation (Bredow et al. 2008). Of course, people do find ways to move from awareness to surface contact and beyond to mutuality (Levinger 1980). This trajectory may occur because one or both partners are strategic and engage in what are referred to as initiation strategies (Berger and Bell 1988; Clark et al. 1999). In this study, we examine the relationship initiation strategies people expect to use in a variety of settings. We specifically focus on whether men and women

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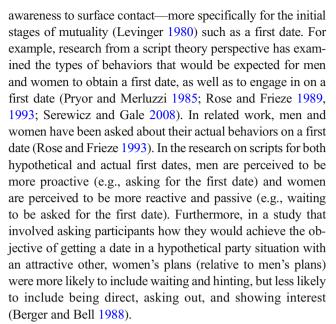
differ in their expressed likelihood of using various strategies to advance from awareness to actual communication (i.e., surface contact) with an attractive other. Furthermore, we consider the influence of shyness, which can impede people's willingness to engage in relationship initiation strategies, and possibly to different degrees for men and women.

Sex Differences in Relationship Initiation

Men have typically been more likely than women to engage in direct and overt relationship initiation, such as being the first to approach and start a conversation and the first to verbally suggest a date or the start of a relationship. Conversely, women are generally identified as more passive and indirect in relationship initiation than are men (Berger and Bell 1988; Clark et al. 1999; Eaton and Rose 2011; Kelley and Rolker-Dolinsky 1987; MacGregor and Cavallo 2011; Ömür and Büyükşahin-Sunal 2015; Tolhuizen 1989). This includes waiting to be approached by a prospective partner (Clark et al. 1999). Furthermore, women tend to display, to a greater degree than men, nonverbal cues of interest in romantic settings (e.g., Moore 2010; Perper 1985) and subtle cues such as hinting or talking more generally about romance (Clark et al. 1999).

There are various ways to study relationship initiation strategies. One method is to ask men and women about the strategies that they have used in the past or would use in the future. For example, in some research on strategic behaviors in romantic relationship initiation, men and women have been asked to imagine initiating a relationship with an available person who might be attracted to them, and to respond to several questions about initiation strategies (Clark et al. 1999; MacGregor and Cavallo 2011). In one such study (Clark et al. 1999; Study 1), men were more likely than women to say they would initiate a relationship with the imagined partner, and also were more likely to report that they would use direct strategies to do so. Women were more likely to report that they would rely on the partner to initiate the relationship. Summarizing across their multi-study research, Clark et al. concluded that women were described as using "indirect and subtle strategies in relationship initiation" (p. 720). In another similar study (MacGregor and Cavallo 2011; Study 2), men were marginally more willing than women to engage in direct initiation strategies in the hypothetical situation of interacting with an attractive, potential partner. However, this sex difference was reduced when women's sense of personal control was enhanced via a manipulation of writing about an event over which they had control. These results suggest that sex differences in initiation strategies may depend on situational factors.

Other research has focused on sex differences in initiation strategies for the period beyond transitioning from first

awareness to surface contact—more specifically for the initial stages of mutuality (Levinger 1980) such as a first date. For example, research from a script theory perspective has examined the types of behaviors that would be expected for men and women to obtain a first date, as well as to engage in on a first date (Pryor and Merluzzi 1985; Rose and Frieze 1989, 1993; Serewicz and Gale 2008). In related work, men and women have been asked about their actual behaviors on a first date (Rose and Frieze 1993). In the research on scripts for both hypothetical and actual first dates, men are perceived to be more proactive (e.g., asking for the first date) and women are perceived to be more reactive and passive (e.g., waiting to be asked for the first date). Furthermore, in a study that involved asking participants how they would achieve the objective of getting a date in a hypothetical party situation with an attractive other, women's plans (relative to men's plans) were more likely to include waiting and hinting, but less likely to include being direct, asking out, and showing interest (Berger and Bell 1988).

Several theoretical foundations suggest why men are more direct in their strategies of relationship initiation than are women, who would be more indirect. Evolutionary theory posits that men and women differed in reproductive constraints, which in turn shaped psychological and behavioral approaches to mate selection (Buss 1995; Buss and Schmitt 1993). Unlike men, who have relatively little risk in reproduction, women have the challenge of gestation and caring for their young. In turn, this discrepancy has led women to be more selective of their mates compared to men because such selectivity aids in identifying the most viable mate who has the necessary resources to tend to the young (e.g., status, financial security). Thus, men have to directly compete with one another for the affection of a potential partner. These smaller-scale dynamics in turn transformed into large-scale societal behavior (Kenrick et al. 2002) that reflect social script theorists' similar conclusions: the expectancy that men adopt direct strategies and women adopt passive (evaluative) strategies (Pryor and Merluzzi 1985; Rose and Frieze 1989; Serewicz and Gale 2008). Reflecting this notion, Rose and Frieze's (1989) investigation found that the script for men contained a greater number of specific active behaviors, including displaying resources, than did the script for women.

We build on the prior research on sex differences in relationship initiation strategies by considering whether sex differences in expectations (plans) for initiation strategies (at the stage of awareness) depend on the situational variable of the particular setting in which interaction occurs. The degree to which men are direct and women are indirect and passive in initiation strategies may depend on the setting. As noted by MacGregor and Cavallo (2011), "even well-established gender differences are influenced by situational factors, and… such factors may ultimately serve to reinforce or undermine such differences" (p. 863).

People begin relationships in a variety of settings (Jonason et al. 2015; Sassler and Miller 2015), including social gatherings, bars, everyday activities (work/school), and today also through Facebook and other internet sites (Rosenfeld and Thomas 2012). Surprisingly, little empirical research has considered how sex differences in relationship initiation might depend on the setting for the first interaction. Settings for relationship initiation can vary on several dimensions. For example, initiation settings can differ on a voluntariness dimension (degree to which interaction is expected as part of the setting; Murstein 1970), as well as on whether the setting is defined as relationship-building (e.g., a "singles" bar) versus more naturally-occurring or task-focused (e.g., work and classes). In addition, today's settings for relationship initiation can be distinguished by whether they are face-to-face versus online (Rosenfeld and Thomas 2012). The degree to which specific initiation strategies are normative is likely to vary across settings, although this has not been considered in prior research. We fill a gap in the literature by considering: (a) whether plans for initiation strategies vary as a function of the specific setting; (b) whether there are sex differences in plans for initiation strategies; and (c) whether sex differences in plans for initiation strategies depend on the setting.

Shyness

Although prior research has found that men tend to be the relationship initiators in mixed-sex romantic relationships (e.g., Clark et al. 1999), some men are likely uncomfortable in this role and may have a difficult time engaging in relationship initiation. Relationship initiation attempts can be risky and result in painful rejection. Those who have social deficiencies such as shyness and social anxiety (Simpson and Harris 1994), or low self-esteem, may be especially reluctant to engage in communication with others, especially if the others are attractive and new acquaintances (e.g., Turner et al. 1986). Because research has shown that shyness and social anxiety are almost indistinguishable (Brook and Willoughby 2017), we consider the relevant literature that refers to either and use *shyness* as the umbrella construct.

Shy people can be self-conscious, uncomfortable around others, and fear negative evaluation and rejection by others (Cheek and Buss 1981; Henderson et al. 2014; Ickes 2009; Jackson et al. 2002). Past research has shown that shyness is associated negatively with social and communication skills (Arroyo and Harwood 2011; Ickes 2009) and associated positively with difficulties in face-to-face social interaction (Arkin and Grove 1990), including initiating conversations (Cheek and Buss 1981; Manning and Ray 1993). Furthermore, shyness has been found to be correlated negatively with self-reports of dating competence and assertiveness (LeSure-Lester 2001).

Some research, however, suggests that people who are shy or possess other social deficiencies (e.g., loneliness) may be more comfortable with and even drawn to online communication (e.g., Caplan 2003; Lundy and Drouin 2016; Orr et al. 2009; Scharlott and Christ 1995; Ward and Tracey 2004). For example, shyness has been found to be associated positively with time spent on Facebook and positive attitudes toward this social media platform (although correlated negatively with number of Facebook friends; Orr et al. 2009). Similarly, shyness has been found to be associated with preference for communicating online more than face-to-face (Pierce 2009). Therefore, the negative effects of shyness on relationship initiation may be unique to certain face-to-face settings, although a comparison of the associations of shyness with plans for initiation strategies across several settings has not been considered within the same study.

The strength of the association between shyness and direct relationship initiation may differ between men and women. Because men, to a greater degree than women, tend to be relationship initiators (Clark et al. 1999), shyness may have greater consequences on plans for relationship initiation among men. Indirect evidence supports this argument. For example, a related social deficiency variable (low self-esteem) has been found to negatively affect the likelihood of taking direct actions to initiate a relationship to a greater degree for men than for women (Cameron et al. 2013) and shyness in men (but not in women) has been found to be associated with less effective plans (as coded by objective others) for dating initiation (Berger and Bell 1988).

Purposes of this Study

In this study, we focus on people's beliefs about the likelihood that they will engage in a variety of strategies to move from awareness of an attractive person to initiating contact with that person. As noted by several scholars (e.g., Berger and Bell 1988; Clark et al. 1999), strategies for relationship initiation are important to examine because they reflect people's "intentions, plans, and actual behaviors in the pursuit of specific goals" (Clark et al. 1999, p. 709). We also chose to examine people's beliefs or plans about strategies (rather than asking retrospectively about past behaviors) to standardize comparisons across settings with the individual constant across settings (i.e., a within subject comparison). We considered four different settings: social gathering, bar or nightclub, work or class, and Facebook. These locations were selected as common settings today for initiating relationships (e.g., Rosenfeld and Thomas 2012; Sassler and Miller 2015). For each setting, participants were asked about their likelihood of engaging in five general initiation strategies, that ranged from being completely direct (e.g., "be direct about your interest") to being completely passive (e.g., "do nothing and hope that he or she does

something"). These initiation strategies were identified as representing the general categories or dimensions underlying strategies assessed in prior research (e.g., Clark et al. 1999).

Our hypotheses and research questions appear below. We formulated hypotheses concerning the effects of sex and shyness on plans for relationship initiation (i.e., to move from awareness to first communication) based on the past research (e.g., Cameron et al. 2013; Clark et al. 1999; Ickes 2009). However, this study is exploratory in terms of how the effects of sex and shyness on planned strategies may depend on the setting, as no prior research has considered this issue.

> *H1*: Overall (across settings), (a) men will be more likely than women to say they will be direct in relationship initiation (e.g., be direct about interest, initiate a conversation); (b) whereas women will be more likely than men to say they will be passive or indirect (e.g., do nothing or ask a friend to introduce them).
> *RQ1*: How will sex differences in plans (i.e., degree of directness) for relationship initiation depend on the specific setting (social gathering, bar, work/class, and Facebook)?
> *H2*: Overall, shyness will be associated negatively with direct relationship initiation plans (i.e., shy people will say they will be less direct).
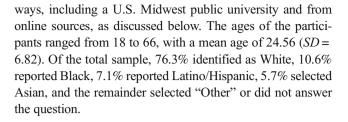> *H3*: The negative association of shyness with direct relationship initiation plans will be stronger for men than for women.
> *RQ2*: How does the association of shyness with plans for relationship initiation (i.e., degree of directness) depend on the particular setting?

Method

Sample

The sample consisted of 735 single adults (61.8% women) who were eligible to be in the study (because of their current unpartnered status), agreed to participate, and completed the measures for this study.[1] Participants were obtained in diverse

ways, including a U.S. Midwest public university and from online sources, as discussed below. The ages of the participants ranged from 18 to 66, with a mean age of 24.56 (SD = 6.82). Of the total sample, 76.3% identified as White, 10.6% reported Black, 7.1% reported Latino/Hispanic, 5.7% selected Asian, and the remainder selected "Other" or did not answer the question.

Procedure

A paper survey and an identical online survey were created. The subsample (26%) for the paper survey was obtained mostly via several social science classes at a Midwest university. Students were told to complete the survey only if they were currently single and unattached (students who were in a relationship were given an alternative survey to complete). Participants received extra credit for completing a survey, but had the option of a non-research activity for earning credit.

A link to the online version of the survey (completed by 74% of the sample) was distributed to several groups of individuals. First, in some classes at the Midwest University, students were given the option by the instructor to complete the online survey outside of class for extra credit (~19% of the online participants). Second, a snowball sample was obtained through research team members given the option to post the survey on social media (~33% of the online participants). Third, data were collected from Amazon's Mechanical Turk (~29% of the online participants); these participants were paid one dollar for completion of the survey. Fourth, a small group (~7% of the online participants) were obtained because they were given the survey as an option for earning research credit when arriving for a different study in the first author's research lab that required two participants (but the other participant did not arrive). Fifth, the link to the survey was posted for a brief time at the Science of Relationships website (currently https://www.luvze.com); ~5% of the online participants came from this source. Finally, other online participants (~7% of the online participants) checked "Other," and the exact way they reached the survey link could not be determined. The percentage from each of these sources is an estimate because not all participants identified the way they reached the online link to the survey.

Measures

The participants completed a survey about several aspects of being single and unattached (including measures that are unrelated to this study). Below, we describe the measures used for this study.

Behaviors to Initiate a Relationship In one section of the survey, participants were presented four social settings one at a time and asked five questions for each setting about their likely intentions or plans should a person whom they had

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[1] This sample size was after eliminating 62 participants who had not completed the end of the survey that included the measures for this study. We also eliminated 12 participants who failed one or both of the two attention checks included in the online survey, one participant who indicated an age under 18, and one MTurk respondent from the Philippines. For more detail on these data deletions, request a supplementary file from the first author. We did not perform an a-priori power analysis to determine sample size. Still, our sample exceeded the minimum power criterion for detecting correlation coefficients, which Schönbrodt and Perugini (2013) suggested to be 250. Post-hoc estimations of statistical power further revealed that we had sufficient power to detect both within- and between-subjects main effects as well as their interaction at $\beta > .99$.

previously noticed and to whom they were attracted were to arrive in the setting. The four settings were: *large social gathering* hosted by a friend, *bar or nightclub* (present with a group of friends), *work or class*, and *Facebook*. The items for initiation strategies were constructed to represent general categories of initiation strategies as reflected in prior research (e.g., Clark et al. 1999). The strategies for initiation that were listed were identical for the three face-to-face settings (social gathering, bar/nightclub, and work/class), and were: (1) Be direct about your interest for this person; (2) Initiate a conversation; (3) Engage in nonverbal behavior to show interest; (4) Ask a friend to introduce (assume a friend is available who knows this person); and (5) Do nothing and hope he or she does something. For the final setting, Facebook,[2] participants were presented with the strategies: #1 (be direct), #4 (friend introduce), and #5 (do nothing). Strategy #2 (initiate a conversation) was replaced by "initiate a private *FB* (Facebook) message conversation." Furthermore, strategy #3 (nonverbal behavior) was replaced with a somewhat passive behavior unique to Facebook, which was to accept the other's friend request. Participants responded to each strategy item with a response scale that ranged from 1 = *not at all likely*; to 7 = *very likely*.

For each setting and then combined across settings, a *Directness in Relationship Initiation* index was created based on the mean of three of the items: (1) Be direct about your interest for this person; (2) Initiate a conversation; and (3) Do nothing and hope the other does something (reverse scored). These three items loaded highly on a primary factor that emerged in a principle components analysis of the items, and have in common that they assess the directness of the planned initiation strategies. Cronbach's alpha of the index in the different settings ranged from .61 to .75. This index is used in some of the analyses below, although there are also results presented for individual items (including the items not included in the index).

Shyness Six items from the longer Cheek and Buss (1981) revised shyness scale were included (e.g., "I feel tense when I'm with people I don't know well.").[3] Participants responded to each item on a 1 = *does not describe me*; to 7 = *describes me completely* response scale. The total score indicated greater shyness (α = .86).

Results

Initiation Strategies in Total Sample and for Men and Women

To examine which initiation strategies the participants expected to use most often, and whether men and women differed in their anticipated use of the strategies, we conducted a 5 (Strategy type) × 2 (Sex: Men vs. Women) mixed ANOVA, with strategy (represented by composite scores of the likelihood of using each of the strategies across the four settings[4]) as the within-subjects factor and sex as the between-subjects factor. For this and all other analyses, $p < .01$ was the significance level because of the relatively large sample size. Furthermore, in our ANOVA tests, we used Šidak corrections for each pairwise comparison to account for Type 1 error. Inclusion of age and source of data collection,[5] as covariates, did not change the results in any in any meaningful way.

The main effect of initiation strategy was significant, $F(4,2932) = 90.98$, $p < .001$, partial $\eta^2 = .11$. Follow-up pairwise comparisons indicated that the primary difference among the strategy types was that participants anticipated that they would be less likely to be direct about their interest as an initiation strategy relative to each of the other strategies. See the first column of Table 1 for the means of each composite score.

The main effect of strategy was qualified by a sex × strategy interaction, $F(4,2932) = 27.43$, $p < .001$, partial $\eta^2 = .04$. Follow-up t-test comparisons revealed sex differences for four strategies (see Table 1). Specifically, supporting *H1a* and *H1b*, men reported to a greater degree than women the intent to be direct about their interest and to initiate a conversation whereas women reported to a greater degree than men the intent to ask a friend to do the introduction and to do nothing and hope the other would initiate. No sex differences emerged for engaging in nonverbal behavior to show interest. As additional evidence that men are more direct in their relationship strategies, they scored higher than women on the total index of *Directness in Relationship Initiation*, which, as noted in the Method section, was a composite of three strategies combined across the four settings.

Sex Differences in Directness in Relationship Strategies as a Function of Setting

We then examined whether sex differences in relationship initiation strategies depended on the setting (*RQ1*), and focused specifically on the degree of directness in relationship initiation. We conducted a 2 (Sex: Men vs. Women) × 4

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[2] It was difficult to make the Facebook scenario comparable to the face-to-face settings, in terms of emphasizing that an attractive person who the participant had noticed previously had arrived in the setting. Our decision was to present the attractive person as having sent a friend request.

[3] Our decision was to include only six items (from the longer 13-item scale) primarily because of concern over the length of the survey (which included measures on many topics) and potential participant fatigue. We chose the first six items listed in the scale. The items chosen had good psychometric properties in our data; item-to-total correlations ranged from .65 to .84, with a mean of .77. Other evidence also indicates that these particular items have good psychometric properties (e.g., Crozier 2005; Hopko et al. 2005).

[4] Cronbach's alpha ranged from .61 to .74; see Table 2.

[5] A four-category variable was created for source of data collection as a control variable (1 = those from the university; 2 = those obtained through Facebook; 3 = those from MTurk, and 4 = Other).

Table 1 Aggregate scores of planned relationship initiation strategies across four settings: results for total sample and men and women

	Mean (SD) Total Sample (N = 735)	Mean (SD) for Men (n = 281)	Mean (SD) for Women (n = 454)	t_{sex}	d_{sex}
Initiation Strategy (ordered from most direct to least direct)					
(1) Be direct about your interest for this person (composite score across settings, $\alpha = .82$)	$2.91 (1.34)^{abcd}$	3.24 (1.41)	2.71 (1.25)	5.31**	0.40
(2) Initiate a conversation (composite score across settings, $\alpha = .70$)	$4.02 (1.27)^{a}$	4.29 (1.29)	3.85 (1.22)	4.65**	0.35
(3) Engage in nonverbal behavior to show interest (composite score across settings, $\alpha = .80$)	$4.06 (1.43)^{be}$	4.09 (1.44)	4.05 (1.42)	0.41	0.03
(4) Ask a friend to introduce you (composite score across settings, $\alpha = .84$)	$3.88 (1.52)^{cef}$	3.66 (1.56)	4.02 (1.48)	−3.11*	−0.24
(5) Do nothing and hope he or she does something (composite score across settings, $\alpha = .83$)	$4.13 (1.56)^{df}$	3.71 (1.54)	4.39 (1.51)	−5.90**	−0.45
Composite of *Directness in Relationship Initiation* ($\alpha = .82$)	3.60 (1.12)	3.94 (1.14)	3.39 (1.05)	6.69**	0.51

* $p < .01$, ** $p < .001$

Displayed are raw means. In the column displaying the means for each strategy, values sharing the same superscript are different at $p < .01$. The effect sizes d for these superscripts were: $a = 0.94$; $b = 0.85$; $c = 0.60$; $d = -0.54$; $e = -0.11$; and $f = 0.11$. Aggregate scores for the initiation strategies were based on responses to all four settings for each of the strategies, with the exception of "engage in nonverbal behavior to show interest" which was based on three of the settings (excluding Facebook). The composite of *Directness in Relationship Initiation* was created based on three items that loaded on a primary component in a principal components analysis of the items and consisted of items 1, 2, and reverse scored 5. Negative values of Cohen's d in the sex differences indicate a higher score for women compared to men. Follow-up analyses indicated that the results did not change in any meaningful way controlling for age and source of data collection (i.e., the same sex differences were found).

(Setting: Large social gathering vs. Bar or nightclub vs. Work or class vs. Facebook) mixed ANOVA (with sex serving as a between-subjects variable and setting serving as a within-subject variable). Not surprising, and foreshadowed by our results above, significant main effects of sex and setting were found. No sex × setting interaction qualified these effects, however. That is, the finding that men expected to be more direct than women was found regardless of setting. In addition, both men and women were more likely to be direct in the settings bar/nightclub and social gatherings than in the other settings. See Table 2. (For a supplementary table that presents the results of a similar analysis for each initiation item, contact the first author.)

The Associations of Shyness with Planned Strategies

Next, we examined how shyness was associated with beliefs about engaging in the relationship initiation strategies. The first column of Table 3 presents the correlations of shyness with the expectation of using each strategy combined across the settings. Shyness was associated negatively with the expectation of being direct about one's interest, initiating a conversation, engaging in nonverbal behavior to show interest, and asking a friend for an introduction. Furthermore, shyness was associated positively with the expectation of doing nothing and hoping that the other would do something. These results support *H2*.

The correlations between shyness and planned strategies are also presented separately for men and women in Table 3. Differences in correlations between men and women emerged for initiate a conversation, engage in nonverbal behavior to

show interest, and ask a friend to introduce (the negative correlations were stronger in magnitude for men than for women). Thus, supporting *H4*, shyness had a more detrimental effect on men's than on women's willingness to engage in relationship initiation.

The Associations between Shyness and Planned Strategies as a Function of the Setting

Next, we examined whether the association of shyness with plans for relationship initiation may depend on the particular setting (*RQ2*). We limited these analyses to the 3-item index of *Directness in Relationship Initiation* in each setting, although a correlational table for each individual item is available by writing the first author. As indicated by the results in Column 1 of Table 4, shyness was associated (negatively) with expectations of being direct in each of the settings, especially for the settings of social gathering and bar/nightclub. Table 4 also presents the correlations separately for men and women, including the Fisher's *r*-to-*z* test comparison of the strength of the correlations. The correlation between shyness and being direct in relationship initiation was significantly greater for men than for women in three of the settings (all but Facebook).[6]

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[6] One of the items unique to the Facebook setting was "accept the friend request." Participants said they were very likely to do this behavior ($M = 6.05$, $SD = 1.58$), and no differences emerged between men ($M = 5.94$, $SD = 1.53$) and women ($M = 6.11$, $SD = 1.61$), $t (729) = 1.44$, $p = .149$, $d = 0.11$). Furthermore, shyness was not associated with the likelihood of accepting the friend request, $r = -.04$, $p = .227$. The correlations for men and women, respectively, were $r = -.07$, $p = .241$; and $r = -.03$, $p = .522$.

Table 2 Results of a mixed-model ANOVA: Composite of directness in relationship initiation (Composite Score) in four settings for men and women

	Total Sample	Men	Women	t_{sex}	d_{sex}
Setting					
Social Gathering ($\alpha = .74$)	$3.84 (1.39)^{ab}$	4.15 (1.40)	3.65 (1.36)	4.81	0.37
Bar/Nightclub ($\alpha = .72$)	$3.78 (1.46)^{cd}$	4.12 (1.52)	3.56 (1.38)	5.16	0.39
Work/Class ($\alpha = .61$)	$3.39 (1.29)^{ac}$	3.68 (1.39)	3.20 (1.19)	5.00	0.38
Facebook ($\alpha = .65$)	$3.40 (1.41)^{bd}$	3.80 (1.39)	3.15 (1.37)	6.26	0.48

$F_{setting} (3,2193) = 43.88, p < .001,$ partial $\eta^2 = .057$

$F_{sex} (1,731) = 43.57, p < .001,$ partial $\eta^2 = .056$

$F_{setting \times sex} (3,2193) = 1.15, p = .326,$ partial $\eta^2 = .002$

Displayed are raw means. All sex differences are at $p < .001$. In the column displaying the means for each setting, values sharing the same superscript are different at $p < .001$. The effect sizes d for these superscripts were: $a = 0.37$; $b = 0.31$; $c = 0.25$; and $d = 0.24$. The composite of Directness in Relationship Initiation for each setting was created from the mean of three items: "Be direct about interest in the person," "Initiate a conversation," and "Do nothing and hope the other does something" (reverse scored). These were three items that loaded on a primary component in principle components analysis. Similar results were found when age and source of data collection were added as control variables. A supplementary table that provides the results for each of the five items (assessing each planned strategy) for each of the four settings is available by writing the first author.

Discussion

People possess an ample arsenal of strategies to initiate relationships. However, not all strategies are used or expected to be used equally, and men and women are likely to differ in their initiation strategies. Furthermore, expectations for using particular initiation strategies may depend on the setting of the interaction, an issue that has not been examined previously. A strategy that is (planned to be) used in one setting, such as a party, may not be planned for another setting (e.g., a workplace). In this research, we examined whether the initiation strategies people plan to use vary across settings, while also considering the potential effects of participants' sex and shyness on the planned strategies.

Setting and Sex

Our participants generally favored indirect strategies for relationship initiation. In fact, participants reported that they would be less likely to use the direct approach of expressing interest than they would be to use any of the other four strategies, which generally did not differ in their degree of endorsement. People's beliefs that they would not choose to engage in the most direct strategy (of expressing interest) likely reflects their fear of rejection to direct strategies (Vorauer and Ratner 1996).

In support of our predictions, men and women differed in the degree to which they expected to use various strategies to approach an attractive other. Men were more likely than women to report that they would use the active strategies of direct approach and beginning a conversation. Women were more likely than men to report that they would use their friends for an introduction or simply do nothing (and hope that the other would do something). Although some research suggests flirting and nonverbal behaviors of interest characterize women (Deaux 1995; Moore 2010), plans for the use of non-verbal cues did not differ between the sexes in our study (see, also, Egland et al. 1996, who found no sex differences in responses to a flirting scale). Further

Table 3 Correlations of shyness with each initiation strategy (summarized across the settings), for total sample and for men and women

Strategy	Total Sample	Men	Women	z
Be direct about interest for the person (composite across settings)	$-.34^{**}$	$-.41^{**}$	$-.29^{**}$	-1.79
Initiate a conversation (composite across settings)	$-.40^{**}$	$-.56^{**}$	$-.29^{**}$	-4.37^{**}
Engage in nonverbal behavior to show interest (composite across settings)	$-.29^{**}$	$-.43^{**}$	$-.19^{**}$	-3.49^{**}
Ask a friend to introduce (composite across settings)	$-.13^{*}$	$-.27^{**}$	$-.04$	-3.09^{*}
Do nothing and hope he or she does something (composite across settings)	$.37^{**}$	$.43^{**}$	$.33^{**}$	1.53

$^* p < .01, ^{**} p < .001$

The above are bivariate correlations. An additional analysis (partial correlations) was conducted controlling for age of participant and source of data collection, and the correlations either did not change or changed only slightly. The final column indicates whether there was a significant difference between the correlations for men and women based on the Fisher's r-to-z transformation.

Table 4 Correlations of shyness with direct relationship initiation (Composite Score) in four settings; total sample and men and women

	Total Sample	Men	Women	z
Setting				
Social Gathering	−.49[**]	−.61[**]	−.41[**]	−3.57[**]
Bar/Nightclub	−.47[**]	−.62[**]	−.37[**]	−4.40[**]
Work/Class	−.31[**]	−.41[**]	−.24[**]	−2.49[*]
Facebook	−.19[**]	−.17[*]	−.20[**]	0.41
Overall Directness in Relationship Initiation	−.45[**]	−.57[**]	−.38[**]	−3.23[**]

[*] $p < .01$ [**] $p < .001$

The above are bivariate correlations. An additional analysis (partial correlations) was conducted controlling for age of participant and source of data collection, and the correlations either did not change or changed only slightly. The final column indicates whether there was a significant difference between the correlations for men and women, based on the Fisher's *r*-to-*z* transformation.

analyses of our study revealed that sex differences in degree of directness in relationship initiation (a composite score) did not depend on the setting of relationship initiation. Thus, men and women's plans for initiation strategies are consistent across settings.

Why would men and women differ in their willingness to engage in direct relationship strategies to attract a mate? The evolutionary-grounded sexual selection theory (Buss and Schmitt 1993) suggests that the foundation of sex differences in relationship initiation strategies stem from the difference in reproductive risk between men and women. Because women have more risk in the process, they are more selective of their potential suitors. Men, on the other hand, must signal to the potential mates that they are of status and have resources which they can use to tend to the young. In turn, men must compete with other men to find a mate. Men's within-sex competition for mates would thus require direct strategies of initiation to display viability and avoid any missed reproductive opportunity. One example of men's within-sex competition is error management: men, more than women, tend to produce false positives when judging whether a desirable other possesses attraction towards them (Haselton and Buss 2000). Our results reflect this idea. Evolutionary principles may further transcend into societal influences and socialization (Kenrick et al. 2002). That is, the mating constraints men and women faced in humans' evolutionary past may have further shaped the influences of socialization on partner attraction. Indeed, in parallel to the evolutionary perspectives, social script theories would further suggest that men are socially expected to approach women when initiating relationships (Cameron et al. 2013). The current study found evidence that these theories may still be correctly describing initiation strategies of today, which may not be surprising considering that sex role expectations have demonstrated persistent stability across time (Lueptow et al. 2001). Our results suggest that the evolutionary theory of sex roles might be more explanatory (at least according to the results of our study) than the sociocultural model; although people may believe that sex roles are becoming more egalitarian, expected behaviors hint otherwise.

Shyness

Another goal of our investigation was to examine whether shyness is associated with choices of initiation strategies, and how this may differ for men and women. Shyness presents challenges in social interactions. People who are shy may not actively seek a partner because of social anxiety, fear of rejection, or having low social skills (Cheek and Buss 1981; Duran and Kelly 1989; Wenzel and Emerson 2009). Indeed, prior studies have demonstrated that shy or socially-anxious persons are less likely to initiate a relationship than their less shy counterparts (Wenzel and Emerson 2009), possibly because of perceptions of inferiority to the desirable target (Bielak and Moscovitch 2013). Our findings reflect these past results. Shyness was found to be associated positively with the reported likelihood of doing nothing and hoping that the other would do something, and with foregoing active strategies such as initiating a conversation. Even relatively indirect strategies such as using non-verbal cues were rated as unlikely actions for those who had high scores of shyness.

A few caveats, however, emerged. First, shyness had stronger negative associations with plans to be direct in relationship initiation in the settings (social gathering, bar) that could be considered to be relationship-initiating or open-field settings (Murstein 1970) as compared to settings of everyday activities (work/school) and Facebook. This may suggest that shy people are especially hesitant to use direct strategies that could be interpreted as romantic overtures in romantic settings, which possibly could allow for a higher risk of rejection. Given that men tend to use such direct strategies more often than women, shyness would impede such actions to a greater degree for men, which was our second caveat. Third, shy people were no less likely than non-shy people to accept a friend request on Facebook, which suggests that shyness is not associated with the likelihood of responding favorably when the other is the initiator, particularly online. It may also reflect that shy people may be more comfortable with some forms of online communication than with face-to-face communication (e.g., Caplan 2003; Lundy and Drouin 2016).

Strengths, Limitations, and Future Directions

This study had several strengths. The large sample, which also entailed a wide age range, afforded statistical power to examine multiple effects. Our use of a within-subject design not only granted us further statistical power, but also allowed us to see how each participant would react to all settings, painting a more precise picture of the strategies they may use. Furthermore, this is the first study to examine the association of shyness with the strategies men and women believe that they would use to lure mates across various settings, contributing further insights to the wide body of work on attraction and relationship initiation.

This study, however, also had limitations. We considered four settings of social interactions, but there are other, more specific conditions or contexts in which people meet. Some examples of other contexts in which relationship initiation occurs include speed dating events, online dating websites, and popular social media and online dating platforms (e.g., Snapchat, Tinder), whose use could differ from that of Facebook. In addition, there are socioecological conditions (such as a country's operational sex ratio or pathogen prevalence) that would affect relationship initiation strategies or tactics. For example, in countries that have an operational sex ratio with more women than men, the women are the ones who have to compete for men's attention, which affects various aspects of dating expectations (e.g., how much the man should spend on dinner; Griskevicius et al. 2012).

Our inclusion of Facebook as a setting of meeting others also presented limitations. Comparing Facebook to the other social settings was challenging, as social interactions online present affordances that one may not have at a social gathering, and vice versa. For example, it may be easier to ask a friend for an introduction at a bar than on Facebook; conversely, a bar does not allow one to "request" friendships easily. Similarly, and regardless of the setting, there are potentially more than five strategies people use to initiate relationships. For example, some people may use clothes, accessories, and possessions as routes of luring others, and engage in a variety of other verbal and nonverbal behaviors (Egland et al. 1996). Furthermore, because this study involved asking participants what they might do in an imaginary situation, there is no guarantee that this is what they would do when faced with actual situations. Note that the use of the vignette method, however, had the strength of allowing the examination of how men and women would behave in different settings without having the problem of self-selection and confounding factors (i.e., the people who choose certain environments to meet others may also differ from others in the strategies they would use to initiate a relationship).

We also acknowledge the limitation that we did not conduct comparisons based on sexual orientation. Because dating scripts are less defined for same-sex courtships, it is possible that gay or lesbian individuals follow the dating scripts for heterosexual individuals (Klinkenberg and Rose 1994). Indeed, motivations for finding a romantic partner for gays and lesbians may be more similar than different to heterosexual individuals (Leigh 1989). Nuances could emerge, however, because same-sex relationships tend to be more egalitarian (Kurdek 1993); therefore, initiation strategies in such relationships may depend more on personality aspects rather than sex. Future research should investigate how sexual orientation might affect relationship initiation strategies.

Both the strengths and the limitations of this study open the door for future research. One such direction is to examine whether men's and women's initiation strategies, including in different settings, differ as a function of whether they are seeking a short-term or a long-term relationship. Perhaps strategies such as non-verbal cues (e.g., flirting) may be more prevalent for those seeking a short-term (vs. long-term) relationship; or for those of a permissive (vs. restrictive) sociosexual orientation (e.g., Jonason and Buss 2012). Furthermore, researchers may consider other individual difference variables that may account for within sex variation in relationship initiation strategies. For example, both MacGregor and Cavallo (2011, Study 2) and Hall and Canterberry (2011) found that extraversion and assertiveness (which are traits that entail dominance and facilitate social interactions) promote the use of direct initiation strategies. Likewise, one's attachment style has potential to influence strategies. It is possible to predict that those with an anxious attachment style may forego direct strategies to passive ones because of factors such as fear of rejection. Similarly, those with other social deficiency traits such as low self-esteem or low mate value may forego direct strategies in favor of doing nothing. Another interesting direction would be to study relationship initiation strategies longitudinally, in order to examine whether the strategies men and women use to initiate a relationship affect the dynamics of the relationship itself (e.g., commitment, stability).

Conclusions

Whether one approaches its explanation through an evolutionary or through a social scripts lens, direct initiation strategies are more prevalent in men than in women. Popular culture, of course, caught on. Self-proclaimed "dating gurus" or "pickup artists" have written bestselling books such as *The Game* (Strauss 2005) or *The Rules* (Fein 1995) that teach men to successfully use direct strategies to woo a mate, albeit often with the goal of a short-term rendezvous. Some men, however, may shy away towards an indirect route. With the dynamics of cultural change, there may well be another version of *The Game* that focuses on direct strategies for women. And fortunately for the shy, accepting a *Facebook* friends request may very well lead to an outcome identical to that of asking someone out at school.

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