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# Predicting Romantic Relationship Formation with Targets of Initial Attraction 

A Dissertation Presented by<br>\section*{Marie Braasch Chelberg}<br>to<br>The Graduate School<br>in Partial Fulfillment of the<br>Requirements<br>for the Degree of<br>Doctor of Philosophy<br>in<br>\title{ Social and Health Psychology }<br>Stony Brook University

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The Graduate School

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# Abstract of the Dissertation <br> Predicting Romantic Relationship Formation with Targets of Initial Attraction by <br> Marie Braasch Chelberg <br> Doctor of Philosophy <br> in <br> Social and Health Psychology <br> Stony Brook University 

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The current research explored potential predictors of romantic relationship formation with a particular target of romantic interest. Possible predictors were derived from a variety of close relationship theories, including Social Penetration Theory, the Investment Model, and the Risk Regulation System. In the main study, single participants who were romantically interested in someone reported on their experiences with the target of interest and were followed-up with for 6 months to determine if they formed a relationship with the target. A factor analysis of the possible predictors yielded three factors - a Closeness/Low Risk factor that included reciprocal liking, mutual self-disclosure, and feeling comfortable with the target; a Target's Positive Traits factor that included perception of the target's similarity to the participant, how intellectually engaging they were, and how desirable their personality was; and an Alternatives factor that included the participant's and target's interest in alternative partners as well as the interest of other people in the participant and the target. The Closeness/Low Risk factor was positively related to relationship formation, while the Alternatives factor was negatively related. Selfesteem was also positively related to relationship formation, and this was fully mediated by the

Closeness/Low Risk factor. These findings are in keeping with previous research on self-esteem and the Risk Regulation System. Overall, this research is some of the first to be done on predictors of whether an attraction to a particular potential partner will turn into a romantic relationship.

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## Introduction

Most people find themselves romantically attracted to other people at some point in their lives, often at multiple points. Some of these attractions are mild or noncommittal; others are strong enough that the people experiencing the attraction feel a desire to enter into a romantic relationship with the target of their attraction. Is there any way to know which of these attractions are likely to turn into romantic relationships? Which factors are predictive of whether someone who is single will form a romantic relationship with someone in whom they are interested?

## Previously Found Predictors of Romantic Relationship Formation

Although there has been much research done on predictors of initial attraction and the initial expression of interest in a relationship, only a handful of studies have examined the transition to actually starting a new romantic relationship.

Schindler, Fagundes, and Murdock (2010) recruited 90 single (not dating anyone) American college students and followed-up with them for 6 months to a year, asking (a) if they had dated anyone and (b) if they had started a committed romantic relationship. They found that the transition from not dating to dating (either dating casually or starting a committed relationship) was predicted by prior dating involvement; the more one had dated in the past, the more likely they were to start dating again. A $1 S D$ increase in prior dating involvement resulted in an increase of 1.97 in the odds of starting to date. Dating goals (i.e., wanting to date) were marginally significant. The researchers also considered attachment style, which reflects individual differences in how people relate to close others and how comfortable they feel with closeness. They found that the transition from not being in a committed romantic relationship to starting a committed relationship was negatively related to attachment avoidance (characterized
by a distrust of close relationships and discomfort with closeness), as measured by the Revised Experiences in Close Relationships Questionnaire (ECR-R; Fraley, Waller, \& Brennan, 2000). A 1-point increase in attachment avoidance on the 7-point scale resulted in a decrease of 0.63 in the odds of starting a committed relationship. Neither anxious attachment nor self-perceived physical attractiveness was a significant predictor of dating or starting a committed relationship.

Asendorpf, Penke, and Back (2011) conducted a speed-dating study in Germany with 382 participants spanning a broad age range (18-54 years old) and then followed-up with them for a year, asking if "they thought that a relationship was about to develop" (p. 20). They found that men were more likely to develop a relationship with female matches who were interested in long-term relationships (as assessed in a pre-event questionnaire).

Poulsen, Holman, Busby, and Carroll (2012) recruited 242 single Latter-day Saint young adults in Utah and asked them weekly for 32 weeks whether they went on no dates, a first date, a second or later date, or whether they reported starting an exclusive romantic relationship. They specifically found that physical attractiveness of the participants (independently measured by the researchers) predicted all four stages (fewer dateless weeks: incidence rate ratio [IRR] $=.86$, more first dates: $\operatorname{IRR}=1.09$, more second or further dates: $\operatorname{IRR}=1.33$, and more likely to enter into an exclusive romantic relationship: $\operatorname{IRR}=1.72$ ). Attachment style also played a role. Both anxiously and avoidantly attached people dated less (had more dateless weeks [anxious: IRR = 1.05; avoidant: $\operatorname{IRR}=1.10$ ] and fewer second or further dates [anxious: $\operatorname{IRR}=.90$, avoidant: $\operatorname{IRR}=.93])$. In keeping with the Schindler et al. (2010) study, avoidantly attached people were also less likely to enter into an exclusive relationship ( $\operatorname{IRR}=.75$ ).

Finally, Stavrova and Ehlebracht (2015) analyzed data from 12,775 people in a nationally representative data set in the German Socio-Economic Panel and found that single people with
higher levels of prosocial behavior in a given year were more likely to be in a romantic relationship the following year (measured by the participants responding on the survey that they "had a steady partner"). Specifically, every 1-point increase in frequency of helping behavior resulted in a $25-46 \%$ increase in the chance of forming a romantic relationship. Higher levels of social involvement were also related to increased likelihood of forming a romantic relationship the next year; however, the effect of prosocial behavior still held even while controlling for social involvement. They also found that extraversion, conscientiousness, and openness were related to increased likelihood of forming a relationship (whereas agreeableness was actually negatively related); again, the effect of prosocial behavior held even after controlling for these personality traits.

Although not as complete as tracking the transition to a full romantic relationship, a relevant experimental process is matching in a speed-dating session (where two people indicate they are both interested in potentially pursuing a relationship with each other). Ireland et al. (2011) examined language style matching, which is similarity in two people's style of speaking, such as how they use function words (e.g., pronouns, conjunctions, and prepositions). In a sample of 40 men and 40 women, they found that language style matching predicted speeddating matching; a $1 S D$ increase in language style matching tripled the likelihood of a speeddating pair choosing each other.

Overall, this research has started to give us insight into predicting who will form new romantic relationships. However, with the exception of the speed-dating studies, this research has focused on the characteristics of just one person in the relationship, following participants over time to see if they form any romantic relationships, without knowing anything about their perceptions of the potential partners. The goal of the present research is to examine both the
participants and their perceptions of specific potential partners to discover predictors of relationship formation.

## Relevant Close Relationship Theories

In the present research, in addition to the studies mentioned earlier, I also drew upon a variety of close relationship theories to generate additional variables that may predict relationship formation.

## The Risk Regulation System

According to the Risk Regulation System (Murray, Holmes, \& Collins, 2006), romantic relationships are risky, because interdependence with another person means they have the ability to hurt you through rejection and lack of support. A key tenet of the risk regulation system is that "the behavioral response system operates to ensure that people only risk as much future dependence as they feel is reasonably safe given recent experience." (Murray et al., 2006, p. 644).

Risk regulation is also highly relevant during relationship formation. When considering whether to form a close personal relationship with someone, you have to determine whether the other person is willing to meet your needs and take care of you. You also have to consider the risk of painful rejection when approaching the other person. Thus, it was reasonable to expect that key predictors of relationship formation would include variables that indicate the other person will support and not reject the self, such as reciprocal liking, self-disclosure, responsiveness, and the other's (lack of) interest in alternative partners.

## Self-esteem

According to the Sociometer Model (Leary, Tambor, Terdal, \& Downs, 1995), selfesteem is a reflection of belongingness. High self-esteem is tied to acceptance from others, while
low self-esteem is tied to rejection and exclusion. When combined with the Risk Regulation System, people with low self-esteem (LSE's) are more worried about rejection and thus are more averse to social risk than people with high self-esteem (HSE's). Stinson, Cameron, Wood, Gaucher, and Holmes (2009) found that LSE's expected less acceptance from others, and participants who expected less acceptance behaved less warmly towards others, which resulted in less actual acceptance. However, this effect went away in a low-risk condition; when the confederate disclosed that they had social anxiety, people low on expected acceptance did not act as anxious, which resulted in them being as high in actual acceptance as those who were high in anticipated acceptance.

Cameron, Stinson, Gaetz, and Balchen (2010) found that LSE's perceived less acceptance from a potential opposite-sex partner than HSE's, even though objective acceptance was held constant (the potential partner was a confederate). LSE's also had higher avoidance goals (as opposed to approach goals) and displayed less prosocial behavior. Again, these effects went away in a low-risk condition (either the potential partner disclosed that they had social anxiety, or they were told that they would never meet the potential partner).

Furthermore, Cameron, Stinson, and Wood (2013) found that LSE men use less direct initiation strategies with a potential romantic partner, and they display fewer liking cues towards the potential partner. This is self-protective; indirect initiation strategies allow one to play it off if the other person is not interested, but they are also less effective. Once again, these effects went away in a low-risk condition (in the correlational study, when the participants described their past experience as having low-risk, and in the experimental study, when participants were told that they would never meet the potential partner in-person).

Thus, given that LSE's are prone to self-fulfilling prophecies of being rejected and use less effective strategies for relationship initiation, it was reasonable to expect that people with low self-esteem would be less likely to form new romantic relationships than people with high self-esteem. Also, the effect of self-esteem on relationship formation might mediate or be mediated by perceived acceptance. Furthermore, previous research demonstrates that this effect is modified by how risky the situation is; thus, it was reasonable to expect that the effect of selfesteem on relationship formation might be moderated by the perception of risk.

## Social Penetration Theory and the Interpersonal Process Model

A key model of relationship development, Social Penetration Theory (Altman \& Taylor, 1973) states that increasing intimacy is created through increasing levels of self-disclosure (sharing personal information about oneself). This increased self-disclosure occurs in both breadth (number of topics) and depth (how deep and personal the information is). A large body of work has shown a link between self-disclosure and liking; people self-disclose more to others whom they like, and people like those who self-disclose to them (Collins \& Miller, 1994).

Reis and Shaver (1988) added to this work with their Interpersonal Process Model, which states that it is not sufficient for one person to self-disclose in order to build intimacy; the other person must also show responsiveness to the self-disclosure, by showing understanding (that they accurately processed the information and its implications), validation (that they appreciate the other person and their views), and caring (such as helping behavior).

These theories are directly related to relationship development, and self-disclosure has been shown to positively predict friendship formation (Hays, 1984, 1985). Thus, it was reasonable to expect that self-disclosure and responsiveness would be related to romantic relationship formation as well.

## The Investment Model

The Investment Model by Rusbult, Wieselquist, Foster, and Witcher (1999), which is based on Interdependence Theory (Thibaut \& Kelley, 1959), states that people's commitment to a romantic relationship and their likelihood of continuing in that relationship is affected by three things - their satisfaction with the relationship, their alternatives (the quality of other potential partners, or the quality of being single instead), and their investments (tangible and intangible things that would be lost if the relationship ended). This model has substantial empirical support (Le \& Agnew, 2003).

It is possible that these factors also play a role when people are still deciding whether they want to commit to a relationship in the first place. I did not ask about satisfaction or investments in the current studies, because these variables are more nebulous at the prerelationship stage, but I did ask about alternative partners (both whether the participant was interested in alternative partners, and if they thought their potential partner was interested in other people). It seemed reasonable to expect that alternative partners for both the participant and target would be negatively related to relationship formation.

## Attachment theory

Attachment theory was initially conceptualized by Bowlby (1973) for infant-caregiver relationships, and then applied by Hazan and Shaver (1987) to adult romantic relationships. Attachment is characterized by certain behaviors that are shown towards the attachment figure, such as treating the attachment figure as a secure base from which to explore the world, finding comfort in the figure as a safe haven, desiring close proximity with the figure, and experiencing distress at separation from the figure. Tests of the attachment bond resulted in three main attachment styles: (1) secure, where people are comfortable with feeling close to and trusting the
attachment figure; (2) anxious-ambivalent, where people desperately want to be close to the figure but are afraid that the feeling is not reciprocated; and (3) avoidant, where people are hesitant to trust the figure and are uncomfortable with closeness. As an alternative to this three category model, later work has evaluated anxious and avoidant attachment as two orthogonal dimensions, with securely attached people being low on both anxiety and avoidance (Fraley \& Shaver, 2000).

In keeping with the findings of Schindler et al. (2010) and Poulsen et al. (2012), it was reasonable to expect that avoidantly attached people would be less likely to enter into a romantic relationship with someone they were interested in, since they have a difficult time trusting and becoming close to others in general. However, since the recruitment criteria for the present studies stipulated that the participants must be "interested in forming a romantic relationship with the other person," it was possible that this effect would be ameliorated (perhaps avoidant people are less likely to be interested in forming relationships in the first place, but once they have an interest, they are just as likely as less avoidant people to actually enter into the relationship).

## The Self-Expansion Model

According to the Self-Expansion Model (Aron \& Aron, 1986), people are motivated to expand their sense of self and ability to accomplish goals by acquiring new resources, perspectives, and identities. A primary way of accomplishing self-expansion is through close relationships, as the close other's self-content becomes part of one's own sense of self (known as inclusion of other in the self). Self-expansion has been related to initial attraction (e.g., Aron, Steele, Kashdan, \& Perez, 2006). Also, experimentally-induced self-expansion from the partner improves marital satisfaction (e.g., Aron, Norman, Aron, McKenna, \& Heyman, 2000).

Some potential partners offer greater self-expansion than others, depending on the quantity of novel resources and skills they have. In fact, even though similarity is often a strong predictor of attraction (since people assume they will get along well with people who are similar), partners who are different (and thus have novel self-content) are preferred if people are given reason to believe that they will still get along well and that a relationship is likely to develop (Aron et al., 2006). Thus, it was reasonable to expect that the more self-expanding one finds a potential partner (e.g., "This person expands my capabilities in life"), the more likely they are to form a romantic relationship with them.

## Self-concept

People care about how others view them and how others impact their sense of self. For example, people want to be viewed positively by their partners, because that is self-enhancing (Kwang \& Swann, 2010), and being idealized by one's partner is related to relationship satisfaction (Murray, Holmes, \& Griffin, 1996). In addition to self-enhancement motives, people also want their partners to view them the way they view themselves (self-verification; Swann, 2012). Another example is that people want relationships that help them become closer to their ideal selves (e.g., people are more interested in becoming friends with others who can help them achieve their goals; Slotter \& Gardner, 2011). Romantic partners also shape our behavior; when your partner views you as having traits consistent with your ideal self, you actually change to become more like that ideal self, which is a process called the Michelangelo Phenomenon (Rusbult, Finkel, \& Kumashiro, 2009). Thus, overall, it was reasonable to expect that relationship formation is more likely when a target is perceived to have a positive effect on a person's self-concept.

## Sexual Strategies Theory

Sexual Strategies Theory (Buss \& Schmitt, 1993) is a mate selection theory based in evolutionary psychology. Over eons, evolution has selected for adaptations that increase genetic fitness (the likelihood that organisms will reproduce so their genes are passed on, and that those offspring will in turn reproduce and pass on their genes, etc.). When considering long-term mating partners, men have a particular interest in physical attractiveness (an indicator of fertility), youth (which affects fertility), and sexual faithfulness (as men have parental uncertainty and want to ensure their resources are being invested into children who actually carry their genes). Women have a particular interest in social status and financial resources, as offspring are more likely to survive if the male partner can provide resources while the mother is pregnant and nursing. However, it should be noted that, while sex differences in mate preference on these variables have been found by asking people to self-report their preferences, in a study of a real-life mate choice (e.g., a speed-dating study), the expected sex difference in preference for physical attractiveness or financial resources was not found (Eastwick \& Finkel, 2008).

Emphasizing the importance of physical attractiveness, Poulsen et al. (2012) found that participants' physical attractiveness (as independently rated by the researchers) was significantly related to starting to date and starting an exclusive relationship.

Thus, it seemed reasonable to expect that people would be more likely to form a romantic relationship if they rated the potential partner as being high in physical attractiveness, both because attractive targets are generally more desirable, and because an attractive target is more likely to form a relationship in general, which means they would be more likely to form a relationship with the participant. I did not expect a sex difference for the impact of physical attractiveness, due to the lack of sex difference found in the above-mentioned speed-dating study (Eastwich \& Finkel, 2008). It also seemed reasonable to expect that the potential partner's career
success would be related to relationship formation, and that this effect might be greater for female participants towards male targets.

## Relevant Close Relationship Processes

## Predictors of initial attraction

Much of the close relationship research in the 1960's and 1970's focused on predictors of initial attraction, which resulted in five key predictors of attraction (both romantic and general): physical attractiveness, desirable personality traits, similarity, familiarity/propinquity, and reciprocal liking.

Physical attractiveness. Physical attractiveness was already mentioned as a predictor of dating and getting into new romantic relationships (Poulsen et al., 2012), but it is worth noting that in speed-dating studies, physical attractiveness of the potential partner is the number one predictor of whether someone will indicate interest in that target (Eastwick \& Finkel, 2008). A similar result was found in Walster et al.'s (1966) classic "computer dance" study.

Desirable personality traits. People are attracted to those who have positive traits, including intelligence, kindness, honesty, and dependability (Anderson, 1968; Buss \& Barnes, 1986). This is in keeping with the research by Stavrova and Ehlebracht (2015), who found that prosocial people were more likely to begin new romantic relationships. Given that people like others with desirable personality traits, and prosocial people are more likely in general to enter into romantic relationships (thus also increasing the likelihood that they would form a relationship with the participant), it was reasonable to expect that people would be more likely to form romantic relationships with others who have positive traits.

Similarity. People like others who are similar to them (Byrne et al., 1970). Similar attitudes have a stronger effect on attraction than similar personalities (Simpson \& Harris, 1994).

Further research has shown that perceived similarity matters much more than actual similarity (Tidwell, Eastwick, \& Finkel, 2013; Montoya, Horton, \& Kirchner, 2008). Thus, it was reasonable to expect that people would be more likely to form relationships with potential partners who they perceived to be similar to them.

Familiarity/Propinquity. The mere exposure effect (Zajonc, 1968) stipulates that we like things more simply after being exposed to them more. This applies to liking people as well (Moreland \& Beach, 1992); the more people interact, the more they are attracted to each other (Reis et al., 2011). Increased familiarity is more likely to occur when people have physical proximity, known as propinquity. For example, people are more likely to become friends with building-mates who live next door rather than on a different floor (Festinger, Schacter, \& Back, 1950) and are more likely to become friends with classmates who sit near them (Back, Schmukle, \& Egloff, 2008). Thus, it was reasonable to expect that people who spent more time together and lived closer to each other would be more likely to form a relationship.

Reciprocal liking. People are attracted to others who like them, and finding out that someone likes you increases your attraction towards them (Backman \& Secord, 1959; Curtis \& Miller, 1986). This also follows directly from the risk regulation model discussed earlier (Murray et al., 2006), in that if you know someone likes you, you do not need to be as afraid of them rejecting you, and thus pursuing a relationship involves less risk to the self. Thus, it was reasonable to expect that perceived reciprocal liking would be positively related to forming a romantic relationship.

## Precursors to falling in love

Aron, Dutton, Aron, and Iverson (1989) asked participants to describe experiences of "falling in love" and "falling in friendship" and assessed the frequency with which the predictors
of initial attraction were mentioned. They found that reciprocal liking and desirable characteristics (both physical attractiveness and personality) were frequently mentioned in the "falling in love" narratives. Similarity and propinquity were not mentioned as frequently in "falling in love," though they were frequently mentioned in "falling in friendship" narratives. Riela, Rodriguez, Aron, Xu, and Acevedo (2010) conducted a similar study and found high frequency of reciprocal liking and familiarity/propinquity in the "falling in love" narratives. Falling in love is a related, though not identical, process to relationship formation, so these studies provide further support that these factors (reciprocal liking, familiarity/propinquity, and desirable characteristics) might be predictive of romantic relationship formation.

## Predictors of Romantic Relationship Formation: Retrospective Interviews

My initial research on this topic (Chelberg, 2013) was an exploratory study using semistructured interviews with 26 Stony Brook University students who had begun a new romantic relationship within the last 6 months. I asked them to describe how they entered into their current relationship (successful relationship formation), as well as a time in the past when they were attracted to someone but had not formed a romantic relationship with them (unsuccessful relationship formation) as a comparison. I then coded the interview transcripts for mentions of many of the factors listed in the above literature review.

Variables that were mentioned significantly more often for successful than unsuccessful relationship formation were similarity of attitudes, certain desirable personality traits (sincere/honest/truthful/trustworthy, loyal, and thoughtful), having fun together, and the target matching the participant's relationship ideals. Variables that were mentioned more for successful formation with marginal significance were mutual self-disclosure, the target fulfilling the participant's needs, and the target helping the participant.

Conversely, a variable that was mentioned significantly more often for unsuccessful relationship formation was the target's interest in alternative partners. Variables that were marginally more likely to be mentioned for unsuccessful relationship formation were the participant's interest in alternative partners and the target's undesirable personality traits.

Reciprocal liking and the target's physical attractiveness were highly mentioned in both successful and unsuccessful relationship formation, and mentions of these predictors did not significantly differ between the two experiences.

As far as I know, this was the first research done on predictors of whether an attraction to a particular potential partner will turn into a romantic relationship. However, this exploratory study had a number of limitations. First, it was retrospective, which meant that the narratives were subject to bias (the participants knew whether they ended up getting into a romantic relationship or not, which could have influenced what they recalled). Second, although the interviews were useful for uncovering new factors not considered in the literature review (such as "having fun together"), it needed to be followed by research that systematically assessed these predictors, rather than relying on spontaneous mentions. Finally, since interviews are timeintensive, the sample size was fairly small; a larger sample was needed for more rigorous statistical analyses.

## The Present Research

In the present research, I extended my previous research on predictors of romantic relationship formation in two ways - by conducting surveys rather than interviews and, for these surveys, doing a prospective study in addition to a systematic retrospective pilot study.

The pilot study was a retrospective, within-subjects survey study, with participants who had started a new romantic relationship within the last 6 months. They filled out two surveys,
one about the experience of starting their new relationship, and one about an experience in the past when they had been attracted to someone but had not formed a relationship with them. Thus, this study mirrored the interview study, but with the added benefit of more systematically assessing the possible predictors and having a larger sample.

The main study was a prospective, between-subjects survey study, with participants who were single and romantically interested in someone at the time of initial testing. They filled out the survey (the same or very similar to the survey in the pilot study) about the potential partner, and then filled out monthly follow-up surveys for up to 6 months, reporting on whether they had formed a romantic relationship with that person or not.

## Pilot Study: Retrospective Surveys

## Research Question

Which variables differentiate between successful romantic relationship formation (forming a romantic relationship with a target of interest) and unsuccessful romantic relationship formation (not forming a romantic relationship with a target of interest)?

## Methods

## Participants

To be eligible for the study, participants had to have entered into a new romantic relationship within the last 6 months. Sixty-nine Stony Brook University students (19 males) completed the study. Participants' mean age was 20.78 years $(S D=3.81)$, range: 18-48 years.

## Procedure

Participants completed two online surveys, one about their experience forming a romantic relationship with their current partner and one about a past experience when they did not end up
forming a relationship with someone to whom they had been attracted. The surveys were completed one week apart and in a randomized order.

## Measures

Possible predictors of relationship formation. I developed the surveys to measure 39 possible predictors of romantic relationship formation. All of these variables (e.g., target's physical attractiveness, target's similarity to the participant, etc.) were reported by the participant, not measured independently. For example, for physical attractiveness, the survey question was "How physically attractive did you think this person was?" on a scale from $1=$ "Very unattractive" to $5=$ "Very attractive." For reciprocal liking, the survey question was "At the time that you were most attracted to them, did you think that this person was romantically interested in you?" on a scale from $1=$ "Very confident they were not interested in me" to $5=$ "Very confident they were interested in me," and $3=$ "Completely unsure if they were interested in me or not." For a full list of variables, see Appendix A. For the full survey, see Appendix C (successful) and Appendix D (unsuccessful).

## Analyses and Results

I analyzed each of the potential predictor variables using 2 (successful vs unsuccessful relationship formation) by 2 (gender) x 2 (order, successful survey first or unsuccessful survey first) ANOVAs. As this was an exploratory pilot study, I took a liberal approach and did not adjust the significance level for multiple comparisons.

Several predictors showed significant main effects. Variables that were mentioned significantly more often for successful romantic relationship formation compared to unsuccessful experiences were perceived similarity (successful: $M=3.83, S D=.17$; unsuccessful: $M=3.31$, $S D=.18 ; F(1,63)=4.73, p=.03$ ), having fun together (successful: $M=3.65, S D=0.09$;
unsuccessful: $M=3.33, S D=.10 ; F(1,65)=5.98, p=.02)$, and feeling comfortable with the target (successful: $M=4.28, S D=.23$; unsuccessful: $M=3.74, S D=.17 ; F(1,65)=10.75, p=$ .002). Conversely, the variable mentioned significantly more often for unsuccessful relationship formation was the target's interest in alternative partners (successful: $M=2.63, S D=.19$; unsuccessful: $M=3.34, S D=.13 ; F(1,65)=11.96, p=.001)$.

Reciprocal liking showed a significant interaction effect between relationship formation success and gender, $F(1,65)=8.84, p=.004$. For male participants, perceived reciprocal liking was much higher in the successful experience $(M=4.31 ; S D=.28)$ than unsuccessful experience $(M=3.14 ; S D=.28)$. In contrast, for female participants, perceived reciprocal liking did not differ significantly between the successful $(M=3.65 ; S D=.17)$ and unsuccessful experiences $(M=3.74 ; S D=.17)$.

Being in another romantic relationship at the time of attraction also showed a significant interaction effect between success and gender, $F(1,65)=4.17, p=.045$. Male participants were more likely to be in another relationship at the time of initial attraction to the successful target (their current partner) $(M=1.93 ; S D=.10)$ than when they were attracted to the unsuccessful relationship target $(M=1.82 ; S D=.09)$. This effect was reversed for female participants; they were more likely to be in another relationship at the time of attraction to the unsuccessful target $(M=1.86 ; S D=.05)$ than when they were initially attracted to the successful target (their current partner $)(M=1.70 ; S D=.06)$.

Only one variable showed a significant main effect of order (successful or unsuccessful survey first) - the participant's overall relationship goals. Participants who did the unsuccessful survey first were more likely to say (across both surveys) that they had generally wanted to be in a romantic relationship during these experiences ( $p=.02$ ).

Two variables showed interaction effects between success and order - trustworthiness and number of other people romantically interested in the participant. For trustworthiness, participants who did the successful relationship survey first did not rate the successful and unsuccessful targets differently, but participants who did the unsuccessful survey first rated the unsuccessful target as less trustworthy than the successful one ( $p=.03$ ). When asked if people besides the potential partner were romantically interested in the participant at the time of the successful or unsuccessful experience, whichever survey was done first was rated as having a greater number of other people interested in them at that time (e.g., if the successful survey was done first, participants said there was a greater number of other people interested in them during the successful than unsuccessful experience. For participants who did the unsuccessful survey first, it was reversed, $p<.001$ ).

## Discussion of Pilot Study

In this pilot study, participants who had recently begun a new relationship filled out two retrospective surveys, one on their experience forming a romantic relationship, and one on an experience of not forming a relationship with a target of romantic interest. Successful relationship formation experiences were more likely to include perceived similarity, having fun together, and feeling comfortable with the target. Unsuccessful experiences were more likely to include the target having an interest in alternative partners.

However, these findings must be treated with caution, as participants were reporting on past experiences and thus were subject to bias, as they knew how each situation ultimately turned out. The sample size was also relatively small (69 participants). To address these issues, I conducted a study using a larger sample size that was prospective, starting while participants were still single and reporting on a romantic target before knowing the eventual outcome.

## Main Study: Prospective Surveys

## Research Questions

1. Which variables differentiate between successful and unsuccessful romantic relationship formation?
2. Do attachment style and self-esteem moderate the effect of these variables on romantic relationship formation?
3. Do people have accurate perceptions of whether a variable is important for relationship formation?

## Methods

## Participants

To be eligible for this study, participants had to be single and attracted to someone with whom they would like to form a romantic relationship.

Altogether, 542 students from Stony Brook University and the University of California, Berkeley participated in this study. The study went through three iterations (Version 1a, 1b, and 2) - there were 169 Stony Brook University students in Version 1 (63 in Version 1a and 106 in Version 1b) and 373 Stony Brook University and University of California, Berkeley students in Version 2. For the entire sample, the mean age was 20.65 years $(S D=3.18)$, range: $18-50$ years. Ethnic backgrounds were Asian (43\%), White (34\%), Hispanic, (9\%), Black (5\%), and other or multi-racial (9\%). Sexual orientation was predominately heterosexual (88.5\%), with the remainder being bisexual (5.9\%), lesbian/gay/homosexual (2.2\%), something else/other (1.1\%), "I don't know" ( $0.7 \%$ ), and decline to answer (1.5\%).

## Procedure

Single participants filled out an online survey about the person they were most attracted to and interested in forming a romantic relationship with (the target of interest). After filling out this survey, participants completed monthly follow-up surveys for up to 6 months, indicating if they had (a) formed a romantic relationship with the target, (b) had not formed a relationship and were no longer interested, or (c) had not formed a relationship but were still interested. Participants stopped filling out monthly follow-ups when they either indicated options a or b (that they formed a relationship with the target or were no longer interested) or when they reached the $6^{\text {th }}$ monthly follow-up.

Version 1a of this study followed the same format as the pilot study, in that participants also filled out a survey about a time in the past when they had been attracted to someone but did not form a relationship with them. Thus, in Version 1a, participants filled out two surveys - one about their current target of interest, and one about a previous unsuccessful relationship formation experience. The surveys were done a week apart and in a randomized order.

In Version 1b of this study, I dropped the survey about the unsuccessful formation experience because I realized I would not use those data in my analysis. Thus, for Version 1b and Version 2, there was only a single original survey, about the current target of interest.

For all versions of the study, participants filled out the original survey as well as up to 6 follow-up surveys, each a month apart. For Versions 1 b and 2, the first follow-up occurred one month after the participant filled out the original survey. For Version 1a, the first follow-up occurred 1-7 months after the original survey.

## Measures

Possible predictors of romantic relationship formation. In Version 1 (1a and 1b), the original survey contained the same variables that were used in the pilot study (see Appendix A). Version 2 of the study contained the following changes to the original survey:

- I used a 7-point scale instead of a 5-point scale for the potential predictors of relationship formation (so that there would be greater sensitivity).
- I added the following variables (for participants' rating of the target): successful, anxious, kind, and responsive to participant's self-disclosure. I added these variables because by the time I created the second version of the survey, I had become interested in the potential effect of these variables based on my reading of relevant literature. For example, responsiveness is a key part of the Interpersonal Process Model (Reis \& Shaver, 1988), and career success is related to financial resources, which is a key part of Sexual Strategies Theory (Buss \& Schmitt, 1993).
- I removed the following variables: approval of target's hobbies/interests, target's helping behavior towards the participant, and participant's helping behavior towards the target. I removed these variables because by the time I created the second version of the survey, I was no longer interested in these variables, as the literature I was drawing upon did not concern them.
- I modified the following variables:
- The original survey asked, "Does [target] act clingy or aloof towards you?" I separated clingy and aloof into two separate questions, so that it would not be a double-barreled question.
- The original survey asked four separate questions for whether (a) the participant's family approved of the potential relationship, (b) participant's friends approved of
the potential relationship, (c) participant's family tried to assist/interfere with the potential relationship, and (d) participant's friends tried to assist/interfere with the potential relationship. In the revised survey, in order to simplify, I combined family and friends, so that there were only two questions - "Do your family and friends generally approve or disapprove of the idea of you being in a romantic relationship with [target]?" and "Have any of your family and friends tried to assist or interfere with you two starting a relationship?"
- I added some demographic variables for the target of interest (target's sexual orientation and target's parents' highest level of education).
- I used auto-generated participant ID codes rather than participant-generated ID codes, to more reliably match the original survey to the follow-up surveys.

For a full list of variables in Version 2, see Appendix B. For the full survey, see Appendix E. For the follow-up survey, see Appendix F.

Participant's perception of the impact of possible predictors. I wanted to assess participants' perception of how important each variable was for relationship formation. Thus, for each of the possible predictors, I also asked participants, "How does this affect how much you want or are able to be in a relationship with this person?" (in Version 1) / "Right now, how does this affect your consideration of [target] as a potential romantic partner?" (in Version 2), rated on a 7-point scale (strongly decrease to strongly increase).

Attachment style and self-esteem. Attachment style was measured with the Experiences in Close Relationships scale (ECR) - Short Form (Wei, Russell, Mallinckrodt, \& Vogel, 2007). The ECR contains subscales for anxious attachment (e.g., "I find that my partner(s) don't want to get as close as I would like") and avoidant attachment (e.g., "I try to avoid getting too close to
my partner"). Participant's global self-esteem was measured using the Single Item Self-Esteem Scale (SISE), "I have high self-esteem" (Robins, Hendin, \& Trzesniewski, 2001), and one item from the Rosenberg Self-Esteem Scale (RSE), "On the whole, I am satisfied with myself" (Rosenberg, 1965) ( $\alpha=.89$ ).

Self-expansion. I used a modified version of the Self-Expansion Questionnaire (SEQ) (Lewandowski \& Aron, 2002) to assess how much the target of interest increased the participant's sense of self. The three selected items were "[Target] increases my ability to accomplish new things," "[Target] expands my capabilities in life," and "I have a larger perspective on things because of [target]," rated from $1=$ "Strongly disagree" to $7=$ "Strongly agree" $(\alpha=.86)$.

Self-concept. I developed a set of 10 items to assess the target's positive impact on the participant's self-concept, which I then averaged together ( $\alpha=.91$ ). The constructs of interest, along with the item used to assess it (on a 7-point scale from "Strongly disagree" to "Strongly agree"), are below:

- Self-esteem - "When I'm with [target], I feel good about myself."
- Authenticity - "I can be myself when I am with [target]."
- Self-concept clarity - "When I'm with [target], I know who I really am."
- Understanding - "[Target] really 'gets' me."
- The "ought" self - "[Target] helps me meet my responsibilities and obligations."
- The "ideal" self - "[Target] helps me become the person I want to be."
- Prevention-focus - "[Target] protects me and/or takes care of me."
- Promotion-focus - "[Target] helps me grow."
- Acceptance - "[Target] accepts me for who I am, both good and bad."
- Idealization - "[Target] sees the best in me."

Inclusion of Other in the Self (IOS). I used the Inclusion of Other in the Self (IOS) scale (Aron, Aron, \& Smollan, 1992) to assess closeness. The IOS scale is a single-item measure, with 7 pairs of circles that overlap to varying degrees. The circles in each pair represent the self and the other, and respondents indicate which pair best represents their relationship.

## Analyses and Results

## Factor Analysis

I started by conducting an exploratory factor analysis (using principal components analysis) of the variables that were present in both versions of the survey. By reducing a large number of variables to a few factors, the factor analysis simplified further analyses, reduced the number of necessary analyses to preserve statistical power, and provided a conceptual understanding of any groupings at work. Many of the variables could be conceptually grouped together in a number of ways, since they pertain to multiple close relationship theories. Thus, instead of starting with theoretical groupings and conducting a confirmatory factor analysis, I started with an exploratory factor analysis and then checked if the groupings made theoretical sense.

The factor analysis included all participants who completed the original survey, regardless of whether they completed the follow-up surveys. I first standardized the variables, because Version 1 of the survey mostly used 5-point scales while Version 2 mostly used 7-point scales. I then dropped the following variables because the sample size was too small (too many people did not answer, stated that they did not know the answer, or said that it was not applicable):

- Participant's family and friends approval of a relationship with the target
- Participant's family and friends assisting or interfering in relationship formation with the target
- Target's family and friends approval of a relationship with the participant
- Target's general relationship goals
- Similarity in religious views
- Similarity in political views

Eleven participants had missing values on six or more variables ( $25 \%$ of the total variable set), so I excluded them from all further analyses.

I first ran the exploratory factor analysis separately on the Version 1 and Version 2 samples. Version 1 had the target's "clinginess and aloofness" as a single question, while Version 2 had "clinginess" and "aloofness" as separate questions. After running the separate analyses, I dropped the "aloof" variable from Version 2 because it fell in a different factor than "clingy" in Version 2 and "clingy and aloof" in Version 1. I then combined the Version 1 and Version 2 samples and re-ran the factor analysis on the combined data set.

The scree plot indicated 3 factors when excluding missing values listwise, but indicated 4 factors when using mean substitution. However, when extracting 4 factors, the factors did not make conceptual sense, so I proceeded with 3 factors. After checking that the factors were not highly correlated, I used a Varimax rotation. Four variables did not load highly on any of the 3 factors - perceived closeness in age, perception of how nearby the target lives, participant's general relationship goals, and number of mutual friends all had loadings of less than 0.2 . Thus, I
removed these variables ${ }^{1}$ and re-ran the factor analysis, which then yielded a scree plot that indicated 3 factors.

The first three unrotated factors accounted for $39 \%$ of the total variance among the remaining 18 variables. The first three Eigenvalues were 3.60, 1.91, and 1.57. The next three Eigenvalues were 1.24, 1.12, and 1.07. Varimax-rotated factor loadings are shown in Table 1.

The first rotated factor had high positive loadings (> .40) on mutual self-disclosure, reciprocal liking, physical intimacy, target's clinginess, and how comfortable the participant felt with the target, as well as a high negative loading on the target's interest in alternative partners. Thus, I named this factor "Closeness/Low Risk." Conflicts also had a high positive loading on this factor, possibly because one can only experience a high level of conflict with a target when there is substantial interaction, rather than a superficial relationship.

The second rotated factor had high positive loadings on how much the participant liked the target's personality, how intellectually engaging the target was, perceived similarity, shared interests, how much fun the participant had with the target, perception of the target's trustworthiness, how hardworking the target was, and how comfortable the participant felt with the target. Thus, I named this factor "Target's Positive Traits."

The third rotated factor had high positive loadings on the participant's interest in alternative romantic partners, the target's interest in alternative romantic partners, other people's romantic interest in the target, and other people's romantic interest in the participant, and a high negative loading on the target's trustworthiness. Thus, I named this factor "Alternatives."

[^0]To check for gender differences, I re-ran the factor analysis separately by gender. The results were nearly the same as for the combined sample. The only notable difference was that for male participants, "comfortable" had a lower loading on the Target's Positive Traits factor (. 23 compared to .41 in the combined sample), and physical attractiveness had almost no loading on the Alternatives factor ( .09 compared to .30 in the combined sample).

## Research question \#1: Which variables differentiate between successful and unsuccessful romantic relationship formation experiences?

Out of 206 participants who completed the follow-up surveys, 41 participants ( 11 males, 30 females) reported that they had successfully formed a romantic relationship with their target of interest, 115 participants ( 24 males, 91 females) reported that they had not formed a romantic relationship with the target and were no longer interested, and 50 participants ( 16 males, 34 females) reported that they had not formed a romantic relationship with the target and were still interested. The following analyses only included the successful (those who did form a relationship with the target of interest) and unsuccessful participants (those who did not form a relationship and were no longer interested). The participants who reported that they had not formed a relationship but were still interested in the target were not included in the analyses, as their condition was "undetermined" - they would presumably eventually end up with a successful or unsuccessful outcome, but at the time of the last follow-up, I did not know which.

For means and standard deviations of all variables by relationship outcome, see Tables 2 and 3.

Multiple regression analyses for each of the 3 factors. I conducted multiple regression analyses to test whether the three factors derived from the factor analysis predicted relationship outcome, controlling for gender and survey version. I conducted a separate analysis for each
factor; the factors were uncorrelated due to the Varimax rotation. Factor and gender were simultaneously entered in the first step, then survey version in the second step, then 2-way and 3way interactions in later steps. Although relationship outcome is binary, and binary dependent variables have traditionally been analyzed using logistic regression rather than linear regression, there have been recent statistical arguments that these analyses produce very similar results, thus making it acceptable to use linear regression for binary dependent variables (Hellevik, 2009).

The Closeness/Low Risk factor significantly predicted successful relationship formation. The overall $R^{2}$ for this factor and gender was $.20, F(2,153)=18.50, p<.001$. The standardized regression coefficients (betas) were .44 for the factor and .11 for gender. Only the coefficient for the Closeness/Low Risk factor was significant, $t(153)=6.02, p<.001$; the coefficients for gender, survey version, and interactions with gender and survey version were not significant. The partial correlation for the Closeness/Low Risk factor with relationship outcome was $p r=.44$.

I tested for a curvilinear effect of the Closeness/Low Risk factor by using curve estimation and found a significant curvilinear effect while controlling for the linear effect, with an $r^{2}$ of $.22, F(2,153)=21.24, p<.001$. The linear effect also remained significant while controlling for the curvilinear effect, with an $r^{2}$ of $.19, F(1,154)=36.30, p<.001$. The impact of the Closeness/Low Risk factor appeared fairly flat when below the mean, but increases in the Closeness/Low Risk factor above the mean were correlated with sharp increases in relationship formation (see Figure 1).

The Target's Positive Traits factor did not significantly predict relationship outcome, $R^{2}=$ $.004, F(2,153)=.34, p=.71$.

The Alternatives factor significantly predicted unsuccessful relationship formation. The overall $R^{2}$ for this factor and gender was $.04, F(2,153)=2.87, p=.06$. The standardized
regression coefficients (betas) were -.18 for the factor and .06 for gender. Only the coefficient for the Alternatives factor was significant, $t(153)=-2.26, p=.03$; the coefficients for gender, survey version, and interactions with gender and survey version were not significant. The partial correlation for the Alternatives factor with relationship outcome was $p r=-.18$.

Using curve estimation, I found a significant curvilinear effect of the Alternatives factor, while controlling for the linear effect and after removing two outliers that had a factor score greater than 3 standard deviations above the mean. The $r^{2}$ was $.05, F(2,152)=4.00, p=.02$. The linear effect also remained significant while controlling for the curvilinear effect, with an $r^{2}$ of $.03, F(1,153)=4.48, p=.04$. Although increases in the Alternatives factor above the mean were associated with a slight increase in the likelihood of relationship formation, decreases in the Alternatives factor below the mean were associated with a much sharper increase in the likelihood of relationship formation (see Figure 2).

Attachment style and self-esteem. I conducted multiple regression analyses to test whether attachment style and self-esteem predicted relationship outcome, controlling for gender and survey version. I conducted one regression with self-esteem, and another regression with attachment anxiety and attachment avoidance.

Self-esteem significantly predicted successful relationship formation. The overall $R^{2}$ for self-esteem and gender was $.08, F(2,153)=6.93, p=.001$. The standardized regression coefficients (betas) were .28 for self-esteem and .06 for gender. Only the coefficient for selfesteem was significant, $t(153)=3.63, p<.001$; the coefficients for gender, survey version, and interactions with gender and survey version were not significant. The partial correlation for selfesteem with relationship outcome was $p r=.28$.

I tested for a curvilinear effect of self-esteem by using curve estimation and found a significant curvilinear effect while controlling for the linear effect, with an $r^{2}$ of $.09, F(2,153)=$ $7.76, p=.001$. The linear effect also remained significant while controlling for the curvilinear effect, with an $r^{2}$ of $.08, F(1,154)=13.10, p<.001$. The impact of self-esteem appeared fairly flat when below the mean, but increases in self-esteem above the mean were correlated with sharp increases in relationship formation (see Figure 3).

I simultaneously tested attachment anxiety and avoidance. Attachment anxiety significantly predicted unsuccessful relationship formation, whereas attachment avoidance did not predict relationship outcome. The overall $R^{2}$ for attachment anxiety, attachment avoidance, and gender was $.10, F(3,149)=5.70, p=.001$. The standardized regression coefficients (betas) were -.30 for attachment anxiety, -.06 for attachment avoidance, and .05 for gender. Only the coefficient for attachment anxiety was significant, $t(149)=-3.72, p<.001$. The coefficients for gender, survey version, and interactions with gender and survey version were not significant. The coefficient for attachment avoidance was not significant, and the interaction between attachment anxiety and avoidance was also not significant. The partial correlation for attachment anxiety with relationship outcome was $p r=-.29$.

I tested for a curvilinear effect of attachment anxiety by using curve estimation and found a significant curvilinear effect while controlling for the linear effect, with an $r^{2}$ of $.09, F(2,150)$ $=7.80, p=.001$. The linear effect also remained significant while controlling for the curvilinear effect, with an $r^{2}$ of $.09, F(1,151)=15.07, p<.001$. There was a somewhat sharper increase in the likelihood of relationship formation at very low levels of attachment anxiety, and a somewhat flattened effect at very high levels of attachment anxiety (see Figure 4).

Partial correlations with individual variables. Some variables were not included in the three factors because they had been left out of the factor analysis, either because they were only in Version 2 of the survey, they did not load highly onto any of the factors, or they did not fit conceptually with any factor. Thus, I tested them separately by checking their partial correlations with relationship outcome; none of these correlations were significant. The variables were:

- Perceived closeness in age
- Perception of how nearby the target lives
- Number of mutual friends
- Participant's general relationship goal
- How kind the target was
- How successful the target was
- How anxious the target was
- Responsiveness to participant's self-disclosure

I also checked the partial correlations between relationship outcome and the following exploratory variables related to the self: the target's impact on the participant's self-concept, selfexpansion, and inclusion of other in the self (IOS).

The perceived impact of the target on participant self-concept had a significant positive partial correlation with relationship formation, $p r=.26, p=.004$. Self-concept also had a significant curvilinear effect when controlling for the linear effect, even after removing 6 outliers that were more than 2 standard deviations below the mean. The $r^{2}$ was $.07, F(2,123)=4.89, p=$ .009. The linear effect also remained significant while controlling for the curvilinear effect, with an $r^{2}$ of $.07, F(1,124)=8.61, p=.004$. The effect of self-concept was fairly flat below the mean,
but increases in self-concept above the mean were related to sharp increases in successful relationship formation (see Figure 5).

Perception of how self-expanding the target was had a marginally significant partial correlation with relationship formation, $p r=.15, p=.08$. The curvilinear effect was significant when controlling for the linear relationship, even after removing two outliers who were beyond 3 standard deviations below the mean, with an $r^{2}$ of $.08, F(2,139)=6.08, p=.003$. The curvilinear effect had a U-shape centered on the mean (see Figure 6). The linear effect was also marginally significant when controlling for the curvilinear effect, with an $r^{2}$ of $.02, F(1,140)=2.85, p=.09$.

Inclusion of other in the self (IOS) had a significant partial correlation with relationship formation, $p r=.19, p=.02$.

For all partial correlations between variables and relationship outcome, both for the variables listed in this section and the variables included in the factor analysis, see Tables 4 and 5.

## Research question \#2: Do attachment style and self-esteem moderate the effect of the factors on romantic relationship formation?

Past research on self-esteem and risk has found that people with low self-esteem behave in ways that reduce their likelihood of forming relationships, but that this effect of self-esteem is mitigated under conditions of low risk (Cameron et al., 2010; Cameron et al., 2013; Gaucher, \& Holmes, 2009). For this reason, I was particularly interested to see if self-esteem would moderate the effect of the Closeness/Low Risk factor.

There were no significant interactions between self-esteem and any of the three factors. There were also no significant interactions between attachment anxiety or avoidance and any of the three factors.

## Mediation analysis for the Closeness/Low Risk factor, self-esteem, and relationship

outcome

Separately, both the Closeness/Low Risk factor and self-esteem predicted successful relationship formation. When included together in a multiple regression analysis, the Closeness/Low Risk factor still had a significant effect, but the effect of self-esteem was no longer significant. Thus, I tested whether the Closeness/Low Risk factor mediated the relationship between self-esteem and relationship outcome.

To test whether the data met the conditions for mediation as delineated by Baron and Kenny (1986), I conducted a series of three regression analyses. In the first regression analysis, the hypothesized cause (self-esteem) was the predictor and the hypothesized effect (relationship outcome) was the criterion variable. The beta (standardized regression coefficient) for the selfesteem was $.28, t(153)=3.63, p<.001$. This is consistent with the hypothesized effect to be mediated - that self-esteem is a cause of relationship formation. In the second regression analysis, the hypothesized cause (self-esteem) was the predictor variable and the hypothesized mediator (the Closeness/Low Risk factor) was the criterion variable. The beta for self-esteem was $.27, t(534)=6.45, p<.001$. This is consistent with the hypothesis that self-esteem is a cause of the Closeness/Low Risk factor. In the third regression analysis, both the hypothesized mediator (the Closeness/Low Risk factor) and the hypothesized cause (self-esteem) were simultaneous predictors; the hypothesized effect (relationship outcome) was the criterion variable. The beta for the hypothesized mediator was .40 and was significant, $t(151)=4.89, p<$ .001. This is consistent with the hypothesis that the Closeness/Low Risk factor is a cause of relationship formation over and above any direct causal influence of self-esteem. Finally, and most important, the beta for self-esteem in this regression was reduced to .12 , and was no longer
significant, $t(151)=1.52, p=.13$. This is a significant reduction compared to its beta of .28 in the unmediated equation, Sobel's test $Z=3.89, p<.001^{2}$. This reduction is consistent with the hypothesis that the Closeness/Low Risk factor mediates self-esteem's effect on relationship formation. The pattern of mediation is shown in Figure 7.

Research question \#3: Do people have accurate perceptions of whether a variable is

## important for relationship formation?

I wanted to assess participants' perception of how important each variable was for relationship formation. Thus, for each of the possible predictors, I also asked participants, "How does this affect how much you want or are able to be in a relationship with this person?" (in Version 1) / "Right now, how does this affect your consideration of [target] as a potential romantic partner?" (in Version 2), rated on a 7-point scale (strongly decrease to strongly increase). Since the variables were grouped into factors, I also grouped the perceived impact ratings the same way. I specifically weighed the perceived impact ratings of each variable by their loading in the factor analysis.

There were no significant interactions between any of the 3 factors and their respective perceived impact ratings.

## Interactions among the factors and between the factors and other potential

## moderators

Interactions among factors. There was a significant interaction between the Closeness/Low Risk factor and the Alternatives factor, $t(145)=-2.86, p=.005$. When the Closeness/Low Risk factor was below the mean, there was no correlation between the Alternatives factor and relationship outcome, $r=.07$; in contrast, when the Closeness/Low Risk

[^1]factor was above the mean, the Alternatives factor had a significant negative relationship with relationship formation, $r=-.31$ (see Figure 8).

The Target's Positive Traits factor did not significantly interact with either of the other two factors (Closeness/Low Risk or Alternatives).

Number of follow-ups. In my analyses on the number of follow-ups, I only used the data set from Version 2 of the survey. In the sample that took Version 2, 1 month passed between the original survey and the first follow-up. In the sample from Version 1 of the survey, the length of time between the original survey and first follow-up varied, so the number of follow-ups does not reliably indicate the amount of time that passed.

The majority of participants (60.6\%) who successfully formed a romantic relationship with the target did so by the first follow-up. Also, there was a significant negative correlation between the Closeness/Low Risk factor and number of follow-ups, $r=-.39, p=.03$, meaning that participants higher on the Closeness/Low Risk factor formed relationships sooner. Participants who reported forming a relationship in the first or second follow-up had a mean score of $.87(S D=.72)$ on the Closeness/Low Risk factor, whereas participants who reported forming a relationship in the third through sixth follow-ups had a mean score of $.09(S D=1.06)$.

Perceived likelihood of relationship formation. The original survey included the item "How likely is it that you will form a romantic relationship with [target]?" with a sliding scale to indicate a percentage from $0 \%$ to $100 \%$. Perceived likelihood of relationship formation was significantly correlated with relationship outcome, $r=.49, p<.001$.

There was a significant interaction between the Closeness/Low Risk factor and perceived likelihood, $t(145)=3.71, p<.001$. The interaction pattern was that the correlation between perceived likelihood of relationship formation and actual successful relationship formation was
stronger for those high on the Closeness/Low Risk factor (see Figure 9). For example, for participants above the mean on the Closeness/Low Risk factor, the correlation between perceived likelihood and actual relationship formation was .45 , while for participants below the mean on the Closeness/Low Risk factor, this correlation was .30 .

The overall $R^{2}$ for the Closeness/Low Risk factor, perceived likelihood, gender, and survey version was $.28, F(4,151)=14.64, p<.001$. The standardized regression coefficients (betas) were .35 for perceived likelihood and .24 for the Closeness/Low Risk factor. The coefficient for the Closeness/Low Risk factor was still significant when including perceived likelihood, $t(151)=2.86, p=.005$, with a partial correlation of .23 with relationship formation (although this is reduced from its $p r$ of .44 without perceived likelihood). The coefficient for perceived likelihood was also still significant when including the Closeness/Low Risk factor, $t(151)=4.16, p<.001$, with a partial correlation of .32 with relationship formation.

The interaction between perceived likelihood of relationship formation and the Target's Positive Traits factor was not significant.

The interaction between perceived likelihood of relationship formation and the Alternatives factor was marginally significant, $t(145)=-1.91, p=.06$.

Current relationship type. The original survey included the item "What type of relationship do you currently have with [target]?" on a 5-point scale, with the answer choices of $1=$ "No or minimal interaction," "Acquaintance," "Casual friend," "Close friend," and $5=$ "Dating but not in an official romantic relationship." Current relationship type was significantly correlated with relationship formation, $r=.25, p=.002$.

There was a significant interaction between the Closeness/Low Risk factor and current relationship type, $t(141)=2.18, p=.03$. The interaction pattern was that there was no correlation
between current relationship type and relationship outcome when participants were low on the Closeness/Low Risk factor, but this correlation was significant and positive when participants were high on the Closeness/Low Risk factor. For example, for participants below the mean on the Closeness/Low Risk factor, this correlation was .001 , whereas for participants above the mean on this factor, the correlation between current relationship type and actual relationship formation was . 18 .

However, potential interpretation of this interaction should also consider that the Closeness/Low Risk factor is highly correlated with current relationship type, $r=.60, p<.001$. Current relationship type no longer has a significant effect on relationship outcome in a multiple regression analysis that simultaneously includes current relationship type, the Closeness/Low Risk factor, and the Closeness/Low Risk factor squared. Given that the Closeness/Low Risk factor does have a significant curvilinear relationship (represented by the squared term) with relationship outcome, the interaction between current relationship type and the factor might actually be a reflection of the factor's curvilinearity (since the high correlation means that the factor multiplied by current relationship type is very similar to the factor squared). Conversely, the curvilinear effect of the Closeness/Low Risk factor might actually be explained by current relationship type and might not be a true curvilinear effect after all. Thus, both the curvilinear effect of the Closeness/Low Risk factor and the interaction between this factor and current relationship type should be interpreted with caution.

The overall $R^{2}$ for the Closeness/Low Risk factor, current relationship type, gender, and survey version was $.20, F(4,147)=8.93, p<.001$. The standardized regression coefficients (betas) were -.06 for current relationship type and .48 for the Closeness/Low Risk factor. The coefficient for the Closeness/Low Risk factor was still significant when including current
relationship type, $t(147)=4.89, p<.001$, with a partial correlation of .37 . The coefficient for current relationship type was no longer significant when including the Closeness/Low Risk factor, $t(147)=-.59, n s$, with a partial correlation of -.05 with relationship formation.

Current relationship type was significantly correlated with perceived likelihood of relationship formation, $r=.43, p<.001$.

The interaction between current relationship type and the Target's Positive Traits factor was marginally significant, $t(141)=1.90, p=.06$.

The interaction between current relationship type and the Alternatives factor was marginally significant, $t(141)=-1.84, p=.07$.

## Discussion

Although there has been some previous research on individual-level factors that predict whether someone will start a new romantic relationship, the present research is the first, to my knowledge, to examine the likelihood of a particular attraction developing into a relationship. Factors

I drew variables from the attraction literature, attachment theory, social penetration theory, the Risk Regulation System, and other close relationship theories to determine potential predictors to test. An exploratory factor analysis of these variables revealed 3 factors: a "Closeness/Low Risk" factor that included reciprocal liking and self-disclosure; a "Target's Positive Traits" factor that included the target's desirable personality traits, similarity, physical attractiveness, and how hardworking they were; and an "Alternatives" factor that included both the participant's and the target's interest in alternative romantic partners, other people's romantic interest in the participant and in the target, and perception of the target as untrustworthy.

The Closeness/Low Risk factor positively predicted relationship formation. This is in keeping with Social Penetration Theory as well as the Risk Regulation System. According to Social Penetration Theory, self-disclosure is a key part of developing intimate relationships (Altman \& Taylor, 1973). Since mutual self-disclosure loaded highly onto the Closeness/Low Risk factor, it follows that this factor would positively predict successful relationship formation.

Additionally, according to the Risk Regulation System, "people only risk as much future dependence as they feel is reasonably safe given recent experience." (Murray et al., 2006, p. 644). The variables that loaded onto the Closeness/Low Risk factor - e.g., reciprocal liking, mutual self-disclosure, and the target acting clingy towards the participant - might have indicated that proceeding with relationship initiation was safe because the target was unlikely to reject them.

It is worth noting that Inclusion of Other in the Self, which is another measure of closeness, also predicted successful relationship formation.

In contrast, the Alternatives factor, which included the presence of romantic alternatives for both the participant and target as well as the target's untrustworthiness, negatively predicted relationship formation. This is in keeping with the Investment Model (Rusbult et al., 1999), which stipulates that the presence of alternatives has a negative effect on relationship commitment. It seems that in addition to reducing commitment in existing relationships, the presence of alternatives can also diminish one's likelihood of beginning a new relationship.

There was an interaction between the Closeness/Low Risk factor and the Alternatives factor. It appears that when closeness between a participant and target is low, the presence of alternatives does not affect relationship formation; however, if the participant and target are close (have self-disclosed to each other, have shown reciprocal liking, etc.), the presence of
alternatives negatively impacts relationship formation. One possible explanation is that, when closeness is low, one does not expect exclusivity, so alternatives are not as problematic; however, when closeness is high and reciprocal liking is present, interest in alternatives may be seen as betrayal.

The Target's Positive Traits factor did not predict relationship formation. This suggests that even though positive traits such as desirable personality traits (Anderson, 1968; Buss \& Barnes, 1986) and similarity (Byrne et al., 1970) are important for initial attraction, they may not further predict the transition from attraction to relationship formation. Instead, once someone finds a target attractive due to their positive traits, relationship formation is determined not by the level of positive traits, but instead by dyadic interactions such as reciprocal liking, selfdisclosure, and the presence of alternatives.

## Attachment Style and Self-Esteem

Attachment anxiety negatively predicted relationship formation. This is inconsistent with the results of Schindler et al. (2010) and Poulsen et al. (2012), who did not find an effect of attachment anxiety on starting an exclusive relationship (however, Poulsen et al. (2012) did find that attachment anxiety negatively predicted going on dates). Schindler et al. (2010) and Poulsen et al. (2012) evaluated whether participants started exclusive relationships with anyone, whereas the present study focused on participants' interest in and relationship formation with a particular romantic target. The discrepancy between those studies and the current results might be due to this methodological difference. While people with attachment anxiety might not be generally less likely to start romantic relationships, it is possible that when they become romantically interested in a specific target, their desire to be close combined with fear of rejection results in them behaving in ways that decreases their likelihood of forming a relationship with that person.

Furthermore, in the present research, attachment avoidance did not predict relationship formation. This again contradicts Schindler et al. (2010) and Poulsen et al. (2012), both of whom found that avoidant people were less likely to start exclusive relationships. Again, it is possible that this difference is due to the way the present research was conducted; the screening criteria specified that participants had to be interested in forming a romantic relationship with a specific target. This suggests that, although avoidant people may generally be less interested in exclusive romantic relationships, they are not less likely to enter into a relationship with someone once they have become particularly interested in that person.

Self-esteem was significantly related to successful relationship formation, and this effect was fully mediated by the Closeness/Low Risk factor. This result fits well with previous research on self-esteem and relationship initiation. Cameron et al. (2010) found that people with low selfesteem (LSE's) perceived lower acceptance from potential partners than did people with high self-esteem, even when actual acceptance was held constant. LSE's also displayed fewer prosocial and approach behaviors. Cameron et al. (2013) also found that LSE men used less direct initiation strategies (even though direct initiation strategies are more effective) and displayed fewer liking cues towards a potential partner. In the present study, the mediation effect of the Closeness/Low Risk factor on self-esteem is consistent with this previous research. People with high self-esteem are more likely to assume that others like them (hence the high ratings on reciprocal liking), and probably feel more comfortable opening up to others (leading to increased mutual self-disclosure, since offering self-disclosure tends to elicit self-disclosure, which then builds intimacy). In these ways, self-esteem is tied to perception of acceptance and engaging in intimacy-building behaviors, which then affects the likelihood of relationship formation.

It is worth noting that, given this was a naturalistic study, it is possible that the participants in this sample with high self-esteem might actually have been more desirable in various aspects, thus eliciting more interest from their romantic targets.

I did not find any moderation effects between any of the factors and self-esteem or attachment style.

## Self-Concept

Perception of the target's positive impact on participant's self-concept (e.g., "This person sees the best in me," "This person helps me grow," "This person really 'gets' me") was significantly related to relationship outcome. This is consistent with other findings that people want their partners to positively impact their self-concept (e.g., self-verification (Swann, 2012), self-enhancement (Kwang \& Swann, 2010), etc.) This also supports the role of the Risk Regulation System in relationship formation. Close relationships are risky because close others can really hurt the self. Thus, people want to choose partners who support and are therefore less likely to hurt the self.

## Curvilinear Effects

Several of these factors and variables had significant curvilinear effects in addition to their significant linear effects on relationship formation. Three variables shared a similar pattern - for the Closeness/Low Risk factor, self-esteem, and the target's positive impact on participant's self-concept, the variable's effect on relationship formation was fairly flat when below the mean, but increases above the mean were correlated with sharp increases in the likelihood of relationship formation. Thus, it seems that the positive effect on relationship formation from having high levels of closeness, self-esteem, and positive impact from the target on self-concept is stronger than the negative effect from being low on these variables. It should
be noted that the Closeness/Low Risk factor was highly correlated with current relationship type, and current relationship type was significantly related to relationship formation, so the curvilinear effect for the Closeness/Low Risk factor might actually reflect the effect of current relationship type rather than a true curvilinear effect.

For the Alternatives factor, increases above the mean were associated with a slight increase in the likelihood of relationship formation, but decreases in the factor below the mean were associated with a much sharper increase in the likelihood of relationship formation. This could mean that a slight amount of competition helps somewhat with relationship formation, but overall, a lack of alternatives has a stronger effect on increasing the likelihood of relationship formation.

Self-expansion displayed a U-shaped pattern, in that both increases above and decreases below the mean were associated with increases in the likelihood of relationship formation. A target offering greater self-expansion opportunities would usually be considered a more desirable partner, and thus the participant would be more likely to form a relationship with them. On the other hand, some people might have a strong desire to maintain and affirm their sense of self, and self-expansion would be contrary to this goal. Thus, it is possible that the people high on self-maintenance motives were more likely to form relationships with targets who specifically did not offer self-expansion opportunities.

There was a somewhat sharper increase in the likelihood of relationship formation at very low levels of attachment anxiety, and a somewhat flattened effect at very high levels of attachment anxiety. Someone who has very low levels of attachment anxiety is likely to have a secure attachment style and would thus be a desirable partner. At the other end, once someone is
already high on attachment anxiety, further increases on this variable might not make much of a difference for the likelihood of relationship formation.

## Perceived Impact of Variables

I was interested to see if participants had accurate perceptions about whether a variable was important for relationship formation. I did not ultimately find a significant interaction between a given variable and participants' perception of that variable's importance for relationship formation. This might be because the analyses were conducted on the variables after they were grouped into factors, and the perceived impact ratings were also grouped and weighted in the same way as the original variables. It is possible that the accuracy of perceived impact might be specific to certain individual variables.

## Perceived Likelihood of Relationship Formation

I found an interaction between the perceived likelihood of relationship formation and the Closeness/Low Risk factor. Participants higher on the Closeness/Low Risk factor had a stronger correlation between perceived likelihood and actual relationship formation. It is possible that the participants who were closer to their targets had more accurate information about the likelihood of forming a romantic relationship.

## Key Close Relationship Theories for Romantic Relationship Formation

Overall, the present research provides support that the Risk Regulation System, Social Penetration Theory, and the Investment Model are key theories for predicting the transition from attraction to actual relationship formation with a specific target.

The Risk Regulation System (Murray et al., 2006) states that close relationships are risky and that people want to protect their sense of self. Thus, consideration of potential romantic
partners is going to take into account whether the other person can be trusted with interdependence.

Social Penetration Theory (Altman \& Taylor, 1973) states that self-disclosure is a key part of developing intimacy and close relationships, which also applies to the transitional phase of beginning a new romantic relationship.

The Investment Model (Rusbult et al., 1999) states that the presence of romantic alternatives decreases people's commitment to their romantic relationships, and that they are less likely to remain in a relationship if there are desirable alternatives. The present research shows that alternatives can also decrease the likelihood of forming a relationship in the first place, even with a target in whom they were primarily interested.

## Limitations and Future Research

One major limitation to this study is that all of the variables were assessed through the participants' self-report. I did not obtain the perspective of the potential partner, or any objective measures of these variables. Further research in this area would be needed to address this.

Another limitation is that the sample for this study consisted entirely of U.S. college students, the vast majority of whom were heterosexual. It is highly likely that predictors of romantic relationship formation may vary depending on age, socioeconomic status, sexual orientation, and culture. For example, adolescents may show an effect of target's positive traits on relationship formation that was not seen in this sample of college students. People in open relationships might not show a negative effect of alternatives on relationship formation, because alternative partners are not necessarily as threatening in that kind of relationship. Future research on predicting romantic relationship formation should expand into these more diverse samples.

In addition to assessing the target's perspective and having objective measures, future research may focus more specifically on variables derived from the Risk Regulation System, Social Penetration Theory, and the Investment Model, to test the relationship between these variables and relationship initiation. For example, controlled lab studies could manipulate some of these predictor variables to see if we can experimentally increase the likelihood of relationship formation.

Another interesting avenue for future research would be investigating the curvilinear effect of self-expansion on relationship outcome. Why are both increases above and decreases below the mean on self-expansion opportunity associated with increases in the likelihood of relationship formation? I have postulated that the association at lower levels of self-expansion may be due to participants who wish to protect their sense of self and do not want to self-expand. Further studies could test this.

While the present research did include some variables derived from the literature on existing relationships (namely alternatives), much of it was based on the initial attraction research. Future work would do well to further investigate variables known to be involved in relationship satisfaction and commitment.

Furthermore, while the present research investigated variables associated with entering into a new romantic relationship, it is unknown whether these variables would also predict relationship success and longevity. It is possible that some factors that push people together are not necessarily good for keeping them together. Thus, it would be very interesting for future research to investigate not only what variables predict relationship formation, but also whether those same variables are predictive of relationship commitment.

In conclusion, relationship initiation and formation has been an understudied phase in the close relationships field, and the present research has provided greater insight into those processes. These findings can be used as a platform for further, more focused research.

Table 1
Factor loadings for Principal Factors Extraction and Varimax Rotation

| Item | Factor 1 <br> (Closeness <br> /Low <br> Risk) | Factor 2 <br> (Target's <br> Positive <br> Traits) | Factor 3 <br> (Alternatives) |
| :--- | :---: | :---: | :---: |
| Mutual self-disclosure | .76 | .17 | -.01 |
| Conflicts | .66 | -.16 | .15 |
| Reciprocal liking | .66 | .15 | -.05 |
| Physical intimacy | .60 | -.03 | .24 |
| Clingy | .47 | .04 | -.26 |
| Comfortable | .44 | .41 | -.13 |
| Fun | .40 | .51 | .14 |
| Others' interest in participant | .30 | .12 | . .53 |
| Shared interests | .30 | .53 | .03 |
| Similarity | .14 | .58 | -.17 |
| Others' interest in target | .10 | .06 | .61 |
| Intellectual | .08 | .62 | .06 |
| Desirable personality | .02 | .66 | .04 |
| Trustworthy | -.03 | .47 | -.43 |
| Physical attractiveness | -.05 | .38 | .31 |
| Hardworking | -.09 | .44 | -.07 |
| Participant's interest in alternatives | -.19 | -.12 | .54 |
| Target's interest in alternatives | -.45 | -.15 | .46 |

Table 2
Means and standard deviations for variables that were included in Version 2 of the original survey and were on a 7-point scale, by relationship outcome.

| Variable | Successful |  |  | Unsuccessful |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | M | SD | n | M | SD |
| Anxious | 33 | 3.82 | 1.86 | 90 | 3.99 | 1.54 |
| Attachment anxiety | 33 | 3.47 | 1.05 | 99 | 4.37 | 1.03 |
| Attachment avoidance | 33 | 3.06 | 1.27 | 99 | 3.35 | . 97 |
| Clingy | 33 | 3.70 | 1.81 | 91 | 2.32 | 1.48 |
| Close in age | 33 | 4.27 | 1.28 | 98 | 4.38 | 1.11 |
| Comfortable | 33 | 6.30 | 1.05 | 98 | 5.87 | 1.27 |
| Fun | 33 | 6.49 | . 71 | 89 | 6.10 | 1.07 |
| Hardworking | 32 | 6.06 | 1.24 | 97 | 6.03 | 1.03 |
| Intellectual | 32 | 6.19 | 1.06 | 95 | 5.92 | 1.17 |
| IOS | 33 | 3.39 | 1.54 | 99 | 2.71 | 1.38 |
| Kind | 33 | 6.52 | . 67 | 97 | 6.33 | . 83 |
| Mutual self-disclosure | 32 | 4.86 | 1.43 | 96 | 3.72 | 1.53 |
| Participant's general relationship | 33 | 5.06 | 1.22 | 99 | 5.10 | 1.27 |
| Personality | 33 | 6.55 | . 67 | 97 | 6.43 | . 64 |
| Physical attractiveness | 33 | 6.00 | 1.20 | 99 | 6.31 | . 76 |
| Reciprocal liking | 30 | 5.23 | . 82 | 79 | 3.87 | 1.47 |
| Responsiveness | 32 | 5.56 | 1.24 | 85 | 5.29 | 1.14 |
| Self-concept | 33 | 5.77 | . 85 | 96 | 5.24 | . 86 |
| Self-esteem | 33 | 5.27 | 1.23 | 99 | 4.30 | 1.59 |
| Self-expansion | 30 | 5.50 | 1.17 | 87 | 5.16 | 1.03 |
| Shared interests | 32 | 4.81 | 1.15 | 90 | 4.50 | 1.27 |
| Similarity | 33 | 5.42 | 1.25 | 96 | 4.98 | 1.56 |
| Successful | 29 | 6.45 | . 83 | 94 | 6.18 | . 84 |
| Target's interest in alternatives | 23 | 2.96 | 1.77 | 61 | 3.95 | 1.50 |
| Trustworthiness | 33 | 6.06 | 1.22 | 83 | 5.93 | 1.11 |

$\mathrm{M}=$ mean, $\mathrm{SD}=$ standard deviation

Table 3
Means and standard deviations for variables that were included in Version 2 of the original survey and were not on a 7-point scale, by relationship outcome.

| Variable | Successful |  |  | Unsuccessful |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | M | SD | n | M | SD |
| Conflicts ${ }^{\text {a }}$ | 33 | 1.67 | . 69 | 88 | 1.41 | . 60 |
| Lives nearby ${ }^{\text {c }}$ | 33 | 3.58 | 1.46 | 96 | 3.56 | 1.27 |
| Number of mutual friends ${ }^{\text {b }}$ | 33 | 3.00 | . 90 | 99 | 2.79 | 1.02 |
| Others' interest in participant ${ }^{\text {a }}$ | 33 | 1.67 | . 74 | 99 | 1.76 | . 77 |
| Others' interest in target ${ }^{\text {a }}$ | 33 | . 55 | . 75 | 99 | 1.54 | . 75 |
| Participant's interest in alternatives ${ }^{\text {a }}$ | 33 | 1.49 | . 57 | 99 | 1.77 | . 64 |
| Physical intimacy ${ }^{\text {a }}$ | 32 | 2.06 | . 80 | 99 | 1.54 | . 76 |
| $\mathrm{M}=$ mean, $\mathrm{SD}=$ standard deviation <br> ${ }^{\text {a }} 3$-point scale, ${ }^{\text {b }} 4$-point scale, ${ }^{\text {c }} 5$-po |  |  |  |  |  |  |

Table 4
Partial correlations between relationship outcome and variables included in both Version 1 and
Version 2 of the original survey, controlling for gender and survey version

| Variable | Partial correlation with relationship outcome | Significance | Degrees of freedom |
| :---: | :---: | :---: | :---: |
| Attachment anxiety | $-0.31^{* * *}$ | <. 001 | 149 |
| Attachment avoidance | -0.13 | 0.12 | 149 |
| Self-esteem | $0.28{ }^{* * *}$ | $<.001$ | 152 |
| Self-expansion | 0.15 | 0.08 | 139 |
| IOS | 0.19* | 0.02 | 152 |
| Personality | 0.03 | 0.70 | 151 |
| Similarity | 0.12 | 0.13 | 150 |
| Hardworking | -0.04 | 0.67 | 149 |
| Comfortable | 0.12 | 0.15 | 152 |
| Physical attractiveness | -0.15 | 0.06 | 152 |
| Trustworthiness | 0.03 | 0.77 | 135 |
| Close in age | -0.07 | 0.42 | 151 |
| Lives nearby | -0.01 | 0.95 | 149 |
| Number of mutual friends | 0.12 | 0.14 | 152 |
| Physical intimacy | $0.28{ }^{* *}$ | . 001 | 151 |
| Conflicts | 0.25 ** | . 002 | 144 |
| Reciprocal liking | $0.33^{* *}$ | <. 001 | 152 |
| Participant's interest in alternatives | -0.21* | 0.01 | 152 |
| Target's interest in alternatives | -0.24** | . 003 | 152 |
| Others' interest in target | -0.06 | 0.48 | 152 |
| Others' interest in participant | 0.04 | 0.62 | 152 |
| Mutual self-disclosure | 0.30 *** | $<.001$ | 149 |
| Shared interests | 0.05 | 0.55 | 143 |
| Fun | 0.15 | 0.08 | 145 |
| Intellectual | 0.10 | 0.22 | 149 |
| Clingy | $0.31{ }^{* * *}$ | <. 001 | 145 |
| Participant's general relationship goals | 0.00 | 1.00 | 152 |
| ${ }^{*} p<.05,{ }^{* *} p<.01,{ }^{* * *} p<.001$ |  |  |  |

Table 5
Partial correlations between relationship outcome and variables only included in Version 2 of the original survey, controlling for gender

| Variable | Partial correlation <br> with relationship <br> outcome | Significance | Degrees of freedom |
| :--- | :---: | :---: | :---: |
| Self-concept | $.26^{* * *}$ | .004 | 123 |
| Kind | .09 | .29 | 125 |
| Successful | .15 | .12 | 116 |
| Anxious | -.05 | .55 | 118 |
| Responsiveness | .10 | .29 | 112 |
| $* * * p<.001$ |  |  |  |

* $p$. 001


Figure 1. The Closeness/Low Risk factor predicting relationship formation ( $0=$ unsuccessful relationship formation, $1=$ successful relationship formation). The quadratic term was significant over and above the linear term. The overall equation, including both the linear and quadratic terms, was significant, $p<.001$.


Figure 2. The Alternatives factor predicting relationship formation ( $0=$ unsuccessful relationship formation, 1 = successful relationship formation). The quadratic term was significant over and above the linear term. The overall equation, including both the linear and quadratic terms, was significant, $p=.02$.


Figure 3. Self-esteem predicting relationship formation ( $0=$ unsuccessful relationship formation, $1=$ successful relationship formation). The quadratic term was significant over and above the linear term. The overall equation, including both the linear and quadratic terms, was significant, $p=.001$.


Figure 4. Attachment anxiety predicting relationship formation (0 = unsuccessful relationship formation, 1 = successful relationship formation). The quadratic term was significant over and above the linear term. The overall equation, including both the linear and quadratic terms, was significant, $p=.001$.


Figure 5. Target's impact on participant's self-concept predicting relationship formation ( $0=$ unsuccessful relationship formation, $1=$ successful relationship formation). The quadratic term was significant over and above the linear term. The overall equation, including both the linear and quadratic terms, was significant, $p=.01$.


Figure 6. Self-expansion predicting relationship formation ( $0=$ unsuccessful relationship formation, 1 = successful relationship formation). The quadratic term was significant over and above the linear term. The overall equation, including both the linear and quadratic terms, was significant, $p=.003$.


Figure 7. Model testing mediation of self-esteem on relationship outcome by the Closeness/Low Risk factor.


Low on Closeness/Low Risk factor (-1 SD)
High on Closeness/Low Risk factor ( +1 SD)

Figure 8. Interaction between the Closeness/Low Risk factor and the Alternatives factor on relationship outcome ( $0=$ unsuccessful relationship formation, $1=$ successful relationship formation).


Low on Closeness/Low Risk factor (-1 SD)
High on Closeness/Low Risk factor (+1 SD)

Figure 9. Interaction between the Closeness/Low Risk factor and perceived likelihood of relationship formation on actual relationship outcome ( $0=$ unsuccessful relationship formation, 1 $=$ successful relationship formation).

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## Appendix A

Variables included in Pilot Study: Retrospective surveys

- Approval of target's hobbies/interests
- Comfortable around target
- Fighting/conflicts
- Hardworking/lazy
- How much fun had together
- Intellectually stimulating/engaging
- Mutual friends
- Mutual self-disclosure (averaged from target's self-disclosure and participant's selfdisclosure)
- Other people romantically interested in participant
- Other people romantically interested in target
- Overall similarity
- Participant helping behavior towards target
- Participant's alternatives (interest in other people)
- Participant's family approval of target
- Participant's family assistance/interference
- Participant's friends approval of target
- Participant's friends assistance/interference
- Participant's general relationship goals
- Participant's relationship status at the time
- Perceived closeness in age
- Personality
- Physical attractiveness
- Physical intimacy between participant and target
- Political views
- Proximity (how close to target live to participant)
- Reciprocal liking (romantic)
- Religious views
- Shared interests
- Target helping behavior towards participant
- Target's alternatives (interest in other people)
- Target's clinginess/aloofness towards participant
- Target's family approval of participant
- Target's friends approval of participant
- Target's general relationship goals
- Target's relationship status at the time
- Trustworthiness
- Were participant and target friends before dating


## Appendix B

## Variables included in Main Study: Prospective surveys (Version 2)

- Aloof
- Anxious
- Clingy
- Comfortable around target
- Fighting/conflicts
- Hardworking/lazy
- How much fun had together
- Intellectually stimulating/engaging
- Kind
- Mutual friends
- Mutual self-disclosure (averaged from target's self-disclosure and participant's selfdisclosure)
- Other people romantically interested in participant
- Other people romantically interested in target
- Participant's alternatives (interest in other people)
- Participant's family and friend's approval
- Participant's family and friend's assistance/interference
- Participant's general relationship goals
- Perceived closeness in age
- Personality
- Physical attractiveness
- Physical intimacy
- Political views
- Proximity (how close to target live to participant)
- Reciprocal liking (romantic)
- Religious views
- Shared interests
- Similarity
- Successful
- Target's alternatives (interest in other people)
- Target's family and friend's approval
- Target's general relationship goals
- Target's relationship status
- Target's responsiveness to participant self-disclosure
- Trustworthiness


## Appendix C

## Pilot Study: Successful Relationship Formation Survey

What is your current relationship status?
O I am currently single.
O I am currently "seeing" or "talking to" someone (or multiple people), but I am not yet in a romantic relationship with (any of) them.
O I am currently in a romantic relationship.
How long ago did your current romantic relationship start?
O 6 months ago or less
O More than 6 months ago

Have you ever broken up with your current partner?
O I have never broken up with my current partner.
O I have broken up and gotten back together with my current partner before.
The following questions will be used to create a unique ID number for you.
What is the first initial of your mother's first name?
What is the first initial of your father's first name?
What month was your mother born in?
O January
O February
O March
O April
O May
O June
O July
O August
O September
O October
O November
O December

What month was your father born in?
O January
O February
O March
O April
O May
O June
O July
O August
O September
O October
O November
O December

We are going to ask you a series of questions about your current romantic partner.
What is your partner's gender?
O Male
O Female
O Non-binary (please explain) $\qquad$
O Decline to answer

How old is your partner?
What is your partner's ethnicity? (Check all that apply)
$\square$ Asian or Asian American
B Black or African American
$\square$ Hispanic or Latino

- White or Caucasian
- Other (explain here) $\qquad$
What is your partner's current education level (that is, how many years of school has he/she FINISHED?)
O Less than 12 (Has not graduated from high school)
O 12 (Graduated from high school)
O 13 (Finished 1 year of college)
O 14 (Finished 2 years of college)
O 15 (Finished 3 years of college)
O 16 (Finished 4 or more years of college)
O More than 16 (Graduated from college and did post-graduate level schooling)
O I don't know

Please choose one of the following categories to describe your relationship.
O Casual, non-exclusive
O Casual, exclusive
O Serious/committed, non-exclusive
O Serious/committed, exclusive
O Engaged
O Married
O Other (explain here) $\qquad$
Are you and your romantic partner living together (meaning that you share a single bedroom, rather than having separate rooms or houses)?
O Yes
O No

How long have you been in this romantic relationship?
O 1 month or less
O 2 months or less
O 3 months or less
O 4 months or less
O 5 months or less
O 6 months or less
O More than 6 months

How long have you known this person?
When did your romantic relationship begin?
How long was it from the time you and your partner met to the time that you two started your romantic relationship?

Were you friends with your partner before you two began your romantic relationship?
O Yes
O No

The following questions are about how you and your partner spent time together BEFORE you two began your relationship. Think back to the time period when you were feeling most attracted to him/her BEFORE your relationship started. If your relationship started the day you two met, answer "never" to these questions.

How often did you spend time with him/her INVOLUNTARILY (meaning that these are places where both of you HAD to be there, like class or work)?
O Never
O Less than Once a Month
O Once a Month
O 2-3 Times a Month
O Once a Week
O 2-3 Times a Week
O Daily
How often did you spend time with them VOLUNTARILY (meaning places where both of you chose to be there)? You did not need to be there in order to see him/her specifically, though that is also included; situations such as both of you being at the same party or hanging out with the same group of friends also counts.
O Never
O Less than Once a Month
O Once a Month
O 2-3 Times a Month
O Once a Week
O 2-3 Times a Week
O Daily
Please select the picture below that best describes your current relationship with your partner.


Think back to the time before you and your partner were in a romantic relationship, but after you were feeling attracted to them. Back then, you did not know if you two would end up in a romantic relationship or not. Thinking back to the time when you were attracted to your partner but not yet in a relationship with them, answer the following questions about you and your partner. In the questions, "this person" refers to your partner.

How physically attractive did you think this person was?
O Very unattractive
O Somewhat unattractive
O Neither attractive nor unattractive
O Somewhat attractive
O Very attractive

How much did you like this person's personality?
O Greatly dislike
O Somewhat dislike
O Neither like nor dislike
O Somewhat like
O Greatly like
How similar was this person to you?
O Very different
O Somewhat different
O Equally similar and different
O Somewhat similar
O Very similar
O I don't know

How much did you and this person have shared interests?
O No shared interests
O Slight shared interests
O A fair amount of shared interests
O A lot of shared interests
O I don't know

Were you and this person friends? If you were friends, how close were you?
O We were not friends.
O We were casual friends.
O We were close friends.

Was this person hardworking or lazy?
O Very lazy
O Somewhat lazy
O Neither lazy nor hardworking
O Somewhat hardworking
O Very hardworking
O I don't know

How trustworthy was this person?
O Very untrustworthy
O Somewhat untrustworthy
O Neither trustworthy nor untrustworthy
O Somewhat trustworthy
O Very trustworthy
O I don't know

What do you think of this person's hobbies and interests?
O This person has some hobbies and interests that I like or approve of.
O This person has some hobbies and interests that I dislike or disapprove of.
O This person has some hobbies and interests I like/approve of and some hobbies and interests I dislike/disapprove of.
O I do not care about this person's hobbies and interests one way or another.
O I don't know what this person's hobbies and interests are.
How much fun did you and this person have together?
O No fun
O A little fun
O Some fun
O A lot of fun

How intellectually engaging and stimulating was this person?
O Not at all intellectually engaging or stimulating
O Slightly intellectually engaging and stimulating
O Somewhat intellectually engaging and stimulating
O Very intellectually engaging and stimulating
O I don't know

Had you and this person been physically intimate? (Remember, this was before you and your partner actually started your relationship).
O This person and I had not yet been physically intimate.
O This person and I had been physically intimate (but had not had sex).
O This person and I had not had sex.

At the time that you were most attracted to them, did you think that this person was romantically interested in you?
O Very confident they were not interested in me
O Somewhat confident they were not interested in me
O Completely unsure if they were interested in me or not
O Somewhat confident they were interested in me
O Very confident they were interested in me
Did they say that they were interested in you?
O I thought that this person was romantically interested in me, but I had not heard them say so.
O This person had said they were romantically interested in me (either they told me, or they told someone else who told me).

Did they say that they were not interested in you?
O I thought that this person was not romantically interested in me, but I had not heard them say so.
O This person had said they were not romantically interested in me (either they told me, or they told someone else who told me).

At the time that you were most attracted to them, did you think this person was romantically interested in other people? (Remember, this was before you and your partner actually started your relationship).
O Very confident they were not interested in other people
O Slightly confident they were not interested in other people
O Completely unsure if they were interested in other people
O Slightly confident they were interested in other people
O Very confident they were interested in other people
How comfortable did you feel around this person?
O Very awkward
O Slightly awkward
O Neither awkward nor uncomfortable
O Slightly comfortable
O Very comfortable

How many friends did you and this person have in common?
O We did not have any friends in common.
O We had a few friends in common.
O We had a lot of friends in common.

Did your family members approve or disapprove of the idea of you being in a romantic relationship with this person?
O My family members approved and wanted me to be in a relationship with this person.
O My family members disapproved and did not want me to be in a relationship with this person.
O Some of my family members approved and some disapproved.
O None of my family members showed approval or disapproval.
O My family members did not know about the possibility of me having a relationship with this person.

Did any of your family members try to assist or interfere with you two starting a relationship?
O Some of my family members tried to assist and "push" us together.
O Some of my family members tried to interfere and keep us apart.
O Some of my family members tried to assist and some tired to interfere.
O None of my family members tried to assist or interfere.
O My family members did not know about the possibility of me having a relationship with this person.

Did your friends approve or disapprove of the idea of you being in a romantic relationship with this person?
O My friends approved and wanted me to be in a relationship with this person.
O My friends disapproved and did not want me to be in a relationship with this person.
O Some of my friends approved and some disapproved.
O None of my friends showed approval or disapproval.
O My friends did not know about the possibility of me having a relationship with this person.
Did any of your friends try to assist or interfere with you two starting a relationship?
O Some of my friends tried to assist and "push" us together.
O Some of my friends tried to interfere and keep us apart.
O Some of my friends tried to assist and some tried to interfere.
O None of my friends tried to assist or interfere.
O My friends did not know about the possibility of me having a relationship with this person.

Did this person's family members approve or disapprove of he idea of you being in a romantic relationship with this person?
O Their family members approved and wanted me to be in a relationship with this person.
O Their family members disapproved and did not want me to be in a relationship with this person.
O Some of their family members approved and some disapproved.
O None of their family members showed approval or disapproval.
O I don't know if their family members approve or disapprove.
O Their family members did not know about the possibility of me having a relationship with this person.

Did this person's friends approve or disapprove of the idea of you being in a romantic relationship with this person?
O Their friends approved and wanted me to be in a relationship with this person.
O Their friends disapproved and did not want me to be in a relationship with this person.
O Some of their friends approved and some disapproved.
O None of their friends showed approval or disapproval.
O I don't know if their friends approve or disapprove.
O Their friends did not know about the possibility of me having a relationship with this person.

Did you and this person share religious views?
O Yes, we had the same or similar religious views.
O No, we had different religious views.
O I don't know if we shared religious views.

Did you and this person share political views?
O Yes, we had the same or similar political views.
O No, we had different political views.
O I don't know if we shared political views.

How close were you and this person in age?
O This person was much younger than I am.
O This person was slightly younger than I am.
O This person was my age.
O This person was slightly older than I am.
O This person was much older than I am.
O I don't know how close we were in age.

Had this person helped you before?
O This person had never helped me before.
O This person had helped me with something minor.
O This person had helped me with something important or serious.

Had you helped this person before?
O I never helped this person before.
O I helped this person with something minor.
O I helped this person with something important or serious.

When you and this person first met, did you "click" and/or feel a sense of "chemistry"?
O Yes
O No

Had this person shared with you personal information that they would not generally tell other people? (Remember, this was before you and your partner actually started your relationship).
O This person had not shared with me personal information that they would not generally tell other people.
O This person had shared with me a little bit of personal information.
O This person had shared with me a lot of personal information.
Had you shared with this person personal information that you would not generally tell other people? (Remember, this was before you and your partner actually started your relationship).
O I had not shared with this person personal information that I would not generally tell other people.
O I had shared with this person a little bit of personal information.
O I had shared with this person a lot of personal information.
At the time that you were most attracted to them, were there other people who were romantically interested in this person? (Remember, this was before you and your partner actually started your relationship).
O I did not know of anyone else who is romantically interested in this person.
O There were other people who were mildly interested in this person.
O There were other people who were strongly interested in this person.
At the time that you were most attracted to them, were there other people who were romantically interested in you? (Remember, this was before you and your partner actually started your relationship).
O I did not know of anyone else who was romantically interested in me.
O There were other people who were mildly interested in me.
O There were other people who were strongly interested in me.

How close did this person live to you? If one or both of you lived in different places during different times of the year, answer for where you both lived most of the time.
O This person lived nearby.
O This person lived moderately far away.
O This person lived very far away.
O I didn't know how far away this person lived.

Had you and this person fought or had conflicts?
O We had not fought or had any conflicts.
O We had minor fights or conflicts.
O We had major fights or conflicts.

At the time that you were most attracted to them, how much did you generally want to be in a romantic relationship (not specifically with the person you were attracted to, but just in general)?
O I really wanted to be single.
O I slightly wanted to be single.
O I did not care if I was single or in a relationship.
O I slightly wanted to be in a relationship.
O I really wanted to be in a relationship.
How much did this person generally want to be in a romantic relationship at that time (not specifically with anyone in particular, but just in general)?
O They really wanted to be single.
O They slightly wanted to be single.
O They did not care if they were single or in a relationship.
O They slightly wanted to be in a relationship.
O They really wanted to be in a relationship.
O I don't know how much they generally wanted to be in a relationship.

Did this person act clingy or aloof towards you?
O Very clingy
O Slightly clingy
O Neither clingy nor aloof
O Slightly aloof
O Very aloof

Were you in a romantic relationship at the time that you were attracted to this person?
O Yes
O No

How satisfied were you with the relationship that you were in at the time?
O Very unsatisfied
O Unsatisfied
O Slightly unsatisfied
O Neutral/mixed
O Slightly satisfied
O Satisfied
O Very satisfied

Did you have any previous romantic relationships that were impacting your ability or desire to be in a relationship with this person that you were attracted to?
O No, my past relationship(s) had no effect on my ability or desire to be in a relationship with this person.
O Yes, my past relationship(s) had an effect on my ability or desire to be in a relationship with this person.
O I did not have any past relationships.
At the time that you were most attracted to them, was this person in a romantic relationship with someone else? (Remember, this was before you and your partner actually started your relationship).
O This person was in another romantic relationship.
O This person was single.
O This person was in a romantic relationship, but it seemed likely that they would break up soon.
O I didn't know if this person is currently in another romantic relationship.
At the time that you were most attracted to this person, were you also attracted to other people? (Remember, this was before you and your partner actually started your relationship).
O I was not attracted to anyone else.
O I was slightly attracted to one or more other people.
O I was strongly attracted to one or more other people.
You will be now be shown your answers to the previous set of questions. Remember, think back to the time BEFORE you started dating your partner but after you were attracted to them. Back then, you did not know if you two would end up in a romantic relationship or not. For each answer, rate how at THAT time it affected how much you wanted or were able to be in a relationship with this person, how it affected how much the other person wanted or was able to be with you, or both.

## Examples:

For the question: Did this person act clingy or aloof towards you? You answered, "[insert participant's answer choice]."
How did this affect how much you wanted or were able to be in a relationship with this person?
O Strongly decrease
O Decrease
O Slightly decrease
O No effect/mixed
O Slightly increase
O Increase
O Strongly increase

Based on this, did you think this person did or did not want to be in a relationship with you?
O Strongly does not want
O Does not want
O Slightly does not want
O No effect/mixed
O Slightly wants
O Wants
O Strongly wants
O I have no idea

For the question: At the time that you were most attracted to this person, were you also attracted to other people? (Remember, this was before you and your partner actually started your relationship). You answered, "[insert participant's answer choice]."
How did this affect how much you wanted or were able to be in a relationship with this person?
O Strongly decrease
O Decrease
O Slightly decrease
O No effect/mixed
O Slightly increase
O Increase
O Strongly increase

How did this affect how much this person wanted or was able to be in a relationship with you? If (at that time) they did not know about this, choose "no effect."
O Strongly decrease
O Decrease
O Slightly decrease
O No effect/mixed
O Slightly increase
O Increase
O Strongly increase
O I had no idea
Were there any other factors involved in increasing how much you wanted or were able to be in a relationship with this person?

Were there any other factors involved in decreasing how much you wanted or were able to be in a relationship with this person?

Were there any other factors involved in increasing how much this person wanted or was able to be in a relationship with you?

Were there any other factors involved in decreasing how much this person wanted or was able to be in a relationship with you?

Respond to each statement using the scales provided.
I have high self-esteem.
O Strongly Disagree
O Disagree
O Somewhat Disagree
O Neither Agree nor Disagree
O Somewhat Agree
O Agree
O Strongly Agree

On the whole, I am satisfied with myself.
O Strongly Disagree
O Disagree
O Somewhat Disagree
O Neither Agree nor Disagree
O Somewhat Agree
O Agree
O Strongly Agree

Please answer the following questions about YOURSELF.
How old are you?
What is your gender?
O Male
O Female
O Decline to answer

What is your ethnicity? (Check all that apply)
$\square$ Asian or Asian American

- Black or African American
$\square$ Hispanic or Latino
- White or Caucasian
$\square$ Other (explain here)

What is your current education level (that is, how many years of school have you FINISHED?)
O Less than 12 (Have not graduated from high school)
O 12 (Graduated from high school)
O 13 (Finished 1 year of college)
O 14 (Finished 2 years of college)
O 15 (Finished 3 years of college)
O 16 (Finished 4 or more years of college)
O More than 16 (Graduated from college and did post-graduate level schooling)
O Graduated from a post-graduate degree program
Which of the following do you think of yourself as?
O Lesbian, gay, or homosexual
O Straight or heterosexual
O Bisexual
O Something else
O I don't know
O Decline to answer
Do you have any additional information or comments that you would like to share?

## Appendix D

## Pilot Study: Unsuccessful Relationship Formation Survey

What is your current relationship status?
O I am currently single.
O I am currently "seeing" or "talking to" someone (or multiple people), but I am not yet in a romantic relationship with (any of) them.
O I am currently in a romantic relationship.
How long ago did your current romantic relationship start?
O 6 months ago or less
O More than 6 months ago

Have you ever broken up with your current partner?
O I have never broken up with my current partner.
O I have broken up and gotten back together with my current partner before.
The following questions will be used to create a unique ID number for you.
What is the first initial of your mother's first name?
What is the first initial of your father's first name?
What month was your mother born in?
What month was your father born in?
The statements below concern how you feel in emotionally intimate relationships. We are interested in how you generally experience relationships, not just in what is happening in any current relationship.
Rated from 1 (Strongly disagree) to 7 (Strongly agree)
I want to get close to my partner, but I keep pulling back.
I worry that romantic partners won't care about me as much as I care about them.
I am nervous when partners get too close to me.
My desire to be very close sometimes scares people away.
I try to avoid getting too close to my partner.
I need a lot of reassurance that I am loved by my partner.

I usually discuss my problems and concerns with my partner.
I do not often worry about being abandoned.
It helps to turn to my romantic partner in times of need.
I find that my partner(s) don't want to get as close as I would like.
I turn to my partner for many things, including comfort and reassurance.
I get frustrated if romantic partners are not available when I need them.
Please think of someone whom you were attracted to in the past, and at the time, you wanted to form a romantic relationship with him/her, but in the end, it never happened. Thus, this should be someone that you were never actually in a romantic relationship with, and you are pretty certain that you never will be in a relationship with him/her.

Have you thought of someone that you were attracted to in the past but never formed a romantic relationship with?
O Yes, I have someone in mind.
O No, I have never before been attracted to someone and then didn't form a relationship with them.

What is this person's gender?
O Male
O Female
O Non-binary (please explain)
O Decline to answer

When were you attracted to this person (from what time to what time)? Please designate the month and year (for example, "from September 2008 to June 2009").

How long ago were you MOST attracted to this person? Specify in years, months, and/or weeks.
At the time when you were feeling MOST attracted to this person, how old was he/she?
At the time when you were feeling MOST attracted to this person, how old were you?
What is this person's ethnicity? (Check all that apply)

- Asian or Asian American

B Black or African American
$\square$ Hispanic or Latino
$\square$ White or Caucasian

- Other (explain here) $\qquad$

At the time that you were most attracted to this person, what was this person's education level (that is, how many years of school had he/she FINISHED?)
O Less than 12 (Had not graduated from high school)
O 12 (Graduated from high school)
O 13 (Finished 1 year of college)
O 14 (Finished 2 years of college)
O 15 (Finished 3 years of college)
O 16 (Finished 4 or more years of college)
O More than 16 (Graduated from college and did post-graduate level schooling)
O I don't know

At the time that you were most attracted to this person, what was YOUR education level (that is, how many years of school had YOU finished?)
O Less than 12 (Had not graduated from high school)
O 12 (Graduated from high school)
O 13 (Finished 1 year of college)
O 14 (Finished 2 years of college)
O 15 (Finished 3 years of college)
O 16 (Finished 4 or more years of college)
O More than 16 (Graduated from college and did post-graduate level schooling)
O I don't know

At the time that you were most attracted to this person, what sort of relationship did you
ACTUALLY have with them?
O No interaction
O Acquaintance
O Casual friend
O Close friend
O Other (please describe) $\qquad$

At the time when you were feeling most attracted to this person, how much did you want to form a romantic relationship with them?
O Slightly
O Somewhat
O Moderately
O Strongly

What kind of romantic relationship did you want with this person?
O Casual, non-exclusive
O Casual, exclusive
O Serious/committed, non-exclusive
O Serious/committed, exclusive
O Other (explain here) $\qquad$

The following questions are about how you and this person spent time together back when you were feeling most attracted to them.

How often did you spend time with them INVOLUNTARILY (meaning that these are places where both of you HAD to be there, like class or work)?
O Never
O Less than Once a Month
O Once a Month
O 2-3 Times a Month
O Once a Week
O 2-3 Times a Week
O Daily

How often did you spend time with them VOLUNTARILY (meaning places where both of you choose to be there)? You do not need to be there in order to see them specifically, though that is also included; situations such as both of you being at the same party or hanging out with the same group of friends also counts.
O Never
O Less than Once a Month
O Once a Month
O 2-3 Times a Month
O Once a Week
O 2-3 Times a Week
O Daily

Think back to the time when you were MOST attracted to this person. Back then, you did not know if you two would end up in a romantic relationship or not. Answer the following questions about you and this person that you were romantically interested in.

The rest of the survey is identical to the successful romantic relationship formation survey; see pages 75-85.

## Appendix E

## Main Study: Prospective Survey

What is your current relationship status?
O I am currently NOT in a romantic relationship.
O I am currently "seeing," "talking to," or dating someone (or multiple people), but I am not yet actually in a romantic relationship with (any of) them.
O I am currently in a romantic relationship.
Which of the following best describes you?
O I am not attracted to anyone.
O I am attracted to someone (or multiple people) but am not interested in forming a romantic relationship with (any of) them.
O I am attracted to someone (or multiple people), and I am interested in forming a romantic relationship with (at least one of) them. I am not yet in a romantic relationship with them.
O I am currently in a romantic relationship with someone.
Answer the following question about the person you are romantically interested in. If you are interested in multiple people, think of the person you MOST want to form a romantic relationship with. Have you ever been in an official romantic relationship with this person in the past?
O Yes
O No

This study involves two parts: this initial survey and the follow-up surveys. If you are eligible to do the follow-up surveys, you may participate once per month for up to six months. Each time you do a follow-up survey, you will receive a $\$ 5$ Amazon gift card as compensation. May we invite you to participate in our follow-up surveys? This is NOT a commitment to participate in the follow-ups. Instead, it merely allows us to invite you to participate if you so choose.
O Yes, invite me to participate in the follow-up surveys
O No, do not invite me to participate in the follow-up surveys
Enter your preferred email address here:
If we may contact you by phone, please enter your preferred phone number here:
What are the best days/times to call you?
The answers that you provide in this survey are important and valuable for our research. We ask that you give your full attention to the survey. People often find it fun and sometimes useful to think about romantic possibilities, so even though this is a long ( 30 minute) questionnaire, we hope you will enjoy it.

Right now, how many people are you attracted to and interested in forming a romantic relationship with?
○ 0
O 1
O More than 1 (please enter number below) $\qquad$
Answer the following questions about this person whom you are attracted to and want to be in a romantic relationship with.

Please think of the person whom you would MOST like to be in a romantic relationship with. Answer the following questions about that person.

What are this person's initials? Do NOT use any spaces (for example, type "AAA," not "A A $\left.A^{\prime \prime}\right)$. If you know their first, middle, and last names, please put down all 3 initials. If you only know their first and last names, please put down those 2 initials. If you only know their first name, please write their first initial.

What is [potential partner]'s gender?
O Male
O Female
O Non-binary (please explain) $\qquad$
How old is [potential partner]? If you're not sure how old they are, write in your best guess along with "I'm not sure."

What is [potential partner]'s ethnicity? (Check all that apply)

- Asian or Asian American

B Black or African American

- Hispanic or Latino
$\square$ White or Caucasian
$\square$ Other (explain here) $\qquad$
What is the highest level of education completed by [potential partner] ?
O Some high school
O Graduated from high school
O Some college
O Graduated with a two-year college degree (Associate's)
O Graduated with a four-year college degree (BA, BS)
O Graduated from college and did some post-graduate schooling
O Has a post-graduate degree (master's, PhD , or professional degree)
O I don't know

If [potential partner] is in college, which year is he/she in?
O Freshman
O Sophomore
O Junior
O Senior
O N/A

What is [potential partner]'s sexual orientation?
O Bisexual/Pansexual
O Heterosexual
O Homosexual
O Other (explain here)
O I don't know
O Decline to answer
What is the highest level of education completed by [potential partner]'s mother?
O Less than high school
O High school/GED
O Some college
O 2-year college degree (Associates)
O 4-year college degree (BA, BS)
O Master's degree
O Doctoral degree
O Professional degree (MD, JD)
O I don't know

What is the highest level of education completed by [potential partner]'s father?
O Less than high school
O High school/GED
O Some college
O 2-year college degree (Associates)
O 4-year college degree (BA, BS)
O Master's degree
O Doctoral degree
O Professional degree (MD, JD)
O I don't know

How long have you known [potential partner]?

What type of relationship do you currently have with [potential partner]?
O No or minimal interaction
O Acquaintance
O Casual friend
O Close friend
O Dating, but not in an official romantic relationship
O Other (please describe in a short phrase) $\qquad$

In a few sentences, how would you describe the type of relationship that you currently have with [potential partner]?

On a scale from 0 to 10 , where $0=$ not at all in a romantic relationship, and $10=$ definitely in a romantic relationship, where does your relationship with [potential partner] fall?

Recently, how often have you interacted with [potential partner]?
O Never
O Less than Once a Month
O Once a Month
O 2-3 Times a Month
O Once a Week
O 2-3 Times a Week
O Daily

Have you talked about the romantic feelings you have towards [potential partner] with him/her?
O Yes
O No

In a few sentences, please describe the conversation(s) you have had with [potential partner] about your romantic feelings towards him/her.

Have you ever gone on romantic dates with [potential partner]?
O Yes (please enter an estimate of how many dates)
O No

Please select the picture below that best describes the relationship you currently have with [potential partner].


How long have you been interested in forming a romantic relationship with [potential partner]?
How much do you want to be in a romantic relationship with [potential partner]?
O Not at all
O Slightly
O Somewhat
O Moderately
O Very much
What kind of romantic relationship would you ideally like to have with [potential partner]?
O Casual, non-exclusive
O Casual, exclusive
O Serious/committed, non-exclusive
O Serious/committed, exclusive
O Other (explain here) $\qquad$
How likely is it that you will form a romantic relationship with [potential partner]? Drag the sliding bar to show a percentage. (Remember to take into account both how you feel about [potential partner] as well as how [potential partner] feels about you.)
$\qquad$ Likelihood of forming a romantic relationship

In a few sentences, please explain why you chose this percentage for the likelihood of forming a romantic relationship with [potential partner].

You will now be asked various questions about [potential partner]'s characteristics and your interactions with him/her. For each answer that you give, you will also rate how this affects your consideration of [potential partner] as a potential romantic partner.
A) How much do you like [potential partner]'s personality?

O Strongly dislike
O Dislike
O Slightly dislike
O Neither like nor dislike
O Slightly like
O Like
O Strongly like
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How similar is [potential partner] to you?

O Very different
O Different
O Slightly different
O Equally similar and different
O Slightly similar
O Similar
O Very similar
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How successful is [potential partner] in his/her career? If [potential partner] is in currently in school, how successful do you think they will be after they graduate?
O Very unsuccessful
O Unsuccessful
O Slightly unsuccessful
O Neither successful nor unsuccessful
O Slightly successful
O Successful
O Very successful
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) In general, how anxious is [potential partner]?

O Very unanxious
O Unanxious
O Slightly unanxious
O Neither anxious nor unanxious
O Slightly anxious
O Anxious
O Very anxious
O Not applicable/I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How kind is [potential partner]?

O Very unkind
O Unkind
O Slightly unkind
O Neither kind nor unkind
O Slightly kind
O Kind
O Very kind
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Is [potential partner] hardworking or lazy?

O Very lazy
O Lazy
O Slightly lazy
O Neither lazy nor hardworking
O Slightly hardworking
O Hardworking
O Very hardworking
O Not applicable/I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How comfortable do you feel around [potential partner]?

O Very uncomfortable
O Uncomfortable
O Slightly uncomfortable
O Neither comfortable nor uncomfortable
O Slightly comfortable
O Comfortable
O Very comfortable
O Not applicable; we don't really interact
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) We do not actually want you to answer a question here. Please select "inspired."

O Very uninspired
O Uninspired
O Slightly uninspired
O Neither inspired nor uninspired
O Slightly inspired
O Inspired
O Very inspired
O Not applicable / I don't know
A) How similar are your and [potential partner]'s religious views?

O Very different
O Different
O Slightly different
O Equally similar and different
O Slightly similar
O Similar
O Very similar
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How similar are your and [potential partner]'s political views?

O Very different
O Different
O Slightly different
O Equally similar and different
O Slightly similar
O Similar
O Very similar
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How physically attractive do you think [potential partner] is?

O Very unattractive
O Unattractive
O Slightly unattractive
O Neither attractive nor unattractive
O Slightly attractive
O Attractive
O Very attractive
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How trustworthy is [potential partner]?

O Very untrustworthy
O Untrustworthy
O Slightly untrustworthy
O Neither trustworthy nor untrustworthy
O Slightly trustworthy
O Trustworthy
O Very trustworthy
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How close are you and [potential partner] in age?

O [potential partner] is much younger than I am.
O [potential partner] is somewhat younger
O [potential partner] is slightly younger
O [potential partner] is my age.
O [potential partner] is slightly older
O [potential partner] is somewhat older
O [potential partner] is much older than I am.
O I don't know how old [potential partner] is.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How close does [potential partner] live to you? If one or both of you live in different places during different times of the year, answer for where you both live most of the time.
O Very far
O Far
O Neither close nor far
O Close
O Very close
O I don't know how close [potential partner] lives.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How many friends do you and [potential partner] have in common?

O We do not have any friends in common that I know of.
O We have one friend in common.
O We have a few friends in common.
O We have a lot of friends in common.
A) When you and [potential partner] first met, did you "click" and/or feel a sense of "chemistry?"
O Yes
O No
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) What level of physical intimacy have you had with [potential partner]?

O [potential partner] and I have not been physically intimate.
O [potential partner] and I have been physically intimate (but have not had sex).
O [potential partner] and I have had sex.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Have you and [potential partner] fought or had conflicts?

O We have not fought or had any conflicts.
O We have had minor fights or conflicts.
O We have had major fights or conflicts.
O Not applicable; we do not really interact.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Is [potential partner] currently in a romantic relationship with someone else?

O No, [potential partner] is not in a romantic relationship with anyone else.
O Yes, [potential partner] is currently in an exclusive romantic relationship.
O Yes, [potential partner] is currently in an exclusive romantic relationship, but it seems likely that they will break up soon.
O [potential partner] is in a romantic relationship, but it is open/non-exclusive.
O I don't know if [potential partner] is currently in another romantic relationship.
A) Do you think that [potential partner] is romantically interested in you?

O Definitely no
O Probably no
O Maybe no
O I have no idea
O Maybe yes
O Probably yes
O Definitely yes
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Do you think [potential partner] is romantically interested in other people?

O Definitely no
O Probably no
O Maybe no
O I have no idea
O Maybe yes
O Probably yes
O Definitely yes
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Are there other people who are romantically interested in [potential partner]?

O I do not know of anyone else who is romantically interested in [potential partner].
O There are other people who are mildly interested in [potential partner].
O There are other people who are strongly interested in [potential partner].
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Are there other people who are romantically interested in you?

O I do not know of anyone else who is romantically interested in me.
O There are other people who are mildly interested in me.
O There are other people who are strongly interested in me.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) We do not want you to actually answer any question here. Instead, please select "dogs" for this item.
O Cats
O Dogs
O Both
O Neither
A) How much intimate personal information about him/herself has [potential partner] shared with you?
O 1 - None
O 2
O 3
O 4
○ 5
O 6
O 7-Almost everything
O Not applicable; we don't really interact.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How much intimate personal information about yourself have you shared with [potential partner]?
O 1 - None
○ 2
O 3
○ 4
O 5
O 6
O 7-Almost everything
O Not applicable; we don't really interact.
A) When you shared intimate personal information about yourself, did you feel like the other person understood, validated, and supported you?
O 1-Not at all
O 2
O 3
○ 4
O 5
O 6
O 7-Extremely
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Strongly decrease
O Decrease
O Slightly decrease
O No effect / mixed
O Slightly increase
O Increase
O Strongly increase
A) We do not actually want you to answer a question here. Instead, please select "3."

O 1-Never
O 2
O 3
○ 4
O 5
O 6
O-Very often
O Not applicable; we don't really interact
A) How many shared interests do you and [potential partner] have?

O 1-None
O 2
O 3
O 4
○ 5
O 6
O 7-Almost all
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Do you have fun with [potential partner]?

O 1 - Not at all
O 2
○ 3
○ 4
○ 5
O 6
O 7-Extremely
O Not applicable; we don't really interact
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How intellectually engaging and stimulating is [potential partner]?

O 1 - Not at all
O 2
O 3
O 4
○ 5
O 6
O 7-Extremely
O Not applicable / I don't know
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How clingy does [potential partner] act towards you?

O 1-Not at all
O 2
O 3
O 4
O 5
O 6
O 7-Extremely
O Not applicable; we do not really interact.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How aloof does [potential partner] act towards you?

O 1-Not at all
O 2
○ 3
○ 4
○ 5
O 6
O 7-Extremely
O Not applicable; we do not really interact.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Do your family and friends generally approve or disapprove of the idea of you being in a romantic relationship with [potential partner]?
O They mostly approve and want me to be in a relationship with [potential partner].
O They mostly disapprove and do not want me to be in a relationship with [potential partner].
O Some of them approve and some disapprove.
O None of them have shown approval or disapproval.
O They do not know about the possibility of me having a relationship with [potential partner].
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Have any of your family and friends tried to assist or interfere with you two starting a relationship?
O Some of them have tried to assist and "push" us together.
O Some of them have tried to interfere and keep us apart.
O Some of them have tried to assist and some have tried to interfere.
O None of them have tried to assist or interfere.
O They do not know about the possibility of me having a relationship with [potential partner].
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Do [potential partner]'s family and friends approve or disapprove of the idea of you being in a romantic relationship with [potential partner]?
O They mostly approve and want [potential partner] to be in a relationship with me.
O They mostly disapprove and do not want [potential partner] to be in a relationship with me.
O Some of them approve and some disapprove.
O None of them have shown approval or disapproval.
O I don't know if they approve or disapprove.
O They do not know about the possibility of me having a relationship with [potential partner].
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How much do you generally want to be in a romantic relationship right now (not specifically with [potential partner], but just in general)?
O I really want to be single.
O I want to be single.
O I slightly want to be single.
O I do not care if I am single or in a relationship.
O I slightly want to be in a relationship.
O I want to be in a relationship.
O I really want to be in a relationship.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) How much does [potential partner] generally want to be in a romantic relationship right now (not specifically with you or with anyone in particular, but just in general)?
O They really want to be single.
O They want to be single.
O They slightly want to be single.
O They do not care if they are single or in a relationship.
O They slightly want to be in a relationship.
O They want to be in a relationship.
O They really want to be in a relationship.
O I don't know how much they generally want to be in a relationship.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
A) Are you currently attracted to other people, besides [potential partner]?

O I am not currently attracted to anyone else.
O I am slightly attracted to one or more other people.
O I am strongly attracted to one or more other people.
B) Right now, how does this affect your consideration of [potential partner] as a potential romantic partner?
O Rated from 1 (Strongly decrease) to 7 (Strongly increase)
What factors are increasing your consideration of [potential partner] as a potential romantic partner? Feel free to list factors that were already mentioned in earlier questions.

What other factors are decreasing your consideration of [potential partner] as a potential romantic partner? Feel free to list factors that were already mentioned in earlier questions.

Do you know of any factors that are increasing how much [potential partner] considers you as a potential romantic partner?

Do you know of any factors that are decreasing how much how much [potential partner] considers you as a potential romantic partner?

Please rate the following statements about [potential partner].
Rated from 1 (Strongly disagree) to 7 (Strongly agree), with an N/A option.
When I'm with [potential partner], I feel good about myself.
I can be myself when I'm with [potential partner].
When I'm with [potential partner], I know who I really am.
[Potential partner] really "gets" me.
We do not actually want you to answer a question here. Instead, please select "strongly disagree."
[Potential partner] helps me meet my responsibilities and obligations.
[Potential partner] helps me become the person I want to be.
[Potential partner] sees the best in me.
[Potential partner] protects me and/or takes care of me.
[Potential partner] helps me to grow.
[Potential partner] accepts me for who I am, both good and bad.
Please rate the following statements about [potential partner].
[Potential partner] increases my ability to accomplish new things.
[Potential partner] expands my capabilities in life.
I have a larger perspective on things because of [potential partner].
Respond to each statement using the scale.
I have high self-esteem.
O Strongly Disagree
O Disagree
O Somewhat Disagree
O Neutral/mixed
O Somewhat Agree
O Agree
O Strongly Agree

On the whole, I am satisfied with myself.
O Strongly Disagree
O Disagree
O Somewhat Disagree
O Neutral/mixed
O Somewhat Agree
O Agree
O Strongly Agree

Now we will ask you some questions about how you experience relationships in general. These questions are NOT specifically about [potential partner]. Instead, we want to know how you generally experience relationships.

The statements below concern how you feel in emotionally intimate relationships. We are interested in how you generally experience relationships, not just in what is happening in any current relationship.

## Rated from 1 (Strongly disagree) to 7 (Strongly agree)

I want to get close to my partner, but I keep pulling back.
I worry that romantic partners won't care about me as much as I care about them.

I am nervous when partners get too close to me.
My desire to be very close sometimes scares people away.
I try to avoid getting too close to my partner.
I need a lot of reassurance that I am loved by my partner.
I usually discuss my problems and concerns with my partner.
I do not often worry about being abandoned.
It helps to turn to my romantic partner in times of need.
I find that my partner(s) don't want to get as close as I would like.
I turn to my partner for many things, including comfort and reassurance.
I get frustrated if romantic partners are not available when I need them.
Please answer the following questions about YOURSELF.
How old are you?
What is your gender?
O Male
O Female
O Non-binary (explain here) $\qquad$

What is your ethnicity? (Check all that apply)
$\square$ Asian or Asian American
B Black or African American
$\square$ Hispanic or Latino

- White or Caucasian
$\square$ Other (explain here) $\qquad$

What is the highest level of education that you have completed?
O Some high school
O Graduated from high school
O Some college
O Graduated with a 2-year college degree (Associate's)
O Graduated with a 4 -year college degree (BA, BS)
O Graduated from college and did some post-graduate level schooling
O Graduated with a post-graduate degree (master's, Ph.D., or professional degree)
If you are in college, which year are you in?
O Freshman
O Sophomore
O Junior
O Senior
O N/A

What is your sexual orientation?
O Bisexual/Pansexual
O Heterosexual
O Homosexual
O Other (explain here) $\qquad$
O Decline to answer
What is the highest level of education completed by your mother?
O Less than high school
O High school/GED
O Some college
O 2-year college degree (Associates)
O 4-year college degree (BA, BS)
O Master's degree
O Doctoral degree
O Professional degree (MD, JD)
O I don't know

What is the highest level of education completed by your father?
O Less than high school
O High school/GED
O Some college
O 2-year college degree (Associates)
O 4-year college degree (BA, BS)
O Master's degree
O Doctoral degree
O Professional degree (MD, JD)
O I don't know

Do you have any additional information or comments that you would like to share?
May we contact you at a later time beyond the current scope of this project to participate in related studies? Your contact information will be held for 5 years in order to facilitate these related studies. All procedures are completely voluntary and you can choose not to participate at that time.
O Yes, you may invite me to participate in related studies.
O No, please do not invite me to participate in related studies.

## Appendix F

Main Study: Follow-up Survey

A while ago, you participated in an online study for us. During that study, you answered questions about a particular person that you were attracted to and romantically interested in. Their initials were [potential partner]. Do you remember who this person is?
O Yes
O No

Please enter your email address here. This will be used to send you a $\$ 5$ Amazon gift card as compensation.

What is your current relationship status?
O I am currently NOT in a romantic relationship.
O I am currently "seeing," "talking to," or dating someone (or multiple people), but I am not yet in a romantic relationship with (any of) them.
O I am currently in a romantic relationship.
A while ago, you participated in an online study with us about a particular person that you were attracted to and romantically interested in; their initials were [potential partner's initials]. Please answer the following questions about this person.

What is [potential partner]'s gender?
O Male
O Female
O Non-binary (please explain)
O Decline to answer
How old is [potential partner]? If you're not sure how old they are, write in your best guess along with "I'm not sure."

What is [potential partner]'s ethnicity? (Check all that apply)
$\square$ Asian or Asian American
B Black or African American
$\square$ Hispanic or Latino

- White or Caucasian
- Other (explain here) $\qquad$

What is [potential partner]'s current education level (that is, how many years of school have they FINISHED?)
O Some high school
O Graduated from high school
O Some college
O Graduated with a two-year college degree (Associate's)
O Graduated with a four-year college degree (BA, BS)
O Graduated from college and did some post-graduate level schooling
O Graduated with a post-graduate degree (master's, Ph.D., or professional)
O I don't know

On a scale from 0 to 10 , where $0=$ not at all in a romantic relationship, and $10=$ definitely in a romantic relationship, where does your relationship with [potential partner] fall?

In the time period since you filled out the last survey (approximately a month ago), did you enter into a romantic relationship with [potential partner]?
O Yes
O No
O We are "talking to," "seeing" each other, or dating, but we have not officially entered into a romantic relationship.

Please select the picture below that best describes the relationship you currently have with [potential partner].


Please rate the following statements about [potential partner].
Rated from 1 (Strongly disagree) to 7 (Strongly agree), with an N/A option.
When I'm with [potential partner], I feel good about myself.
I can be myself when I'm with [potential partner].
When I'm with [potential partner], I know who I really am.
[Potential partner] really 'gets' me.
We do not actually want you to answer a question here. Instead, please select "strongly disagree."
[Potential partner] helps me meet my responsibilities and obligations.
[Potential partner] helps me become the person I want to be.
[Potential partner] sees the best in me.
[Potential partner] protects me and/or takes care of me.
[Potential partner] helps me to grow.
[Potential partner] accepts me for who I am, both good and bad.
What type of relationship do you currently have with [potential partner]?
O No or minimal interaction
O Acquaintance
O Casual friend
O Close friend
O Dating, but not in an official romantic relationship
O Other (please describe in a short phrase) $\qquad$
In a few sentences, how would you describe the type of relationship that you currently have with [potential partner]?

How often do you interact with [potential partner]?
O Never
O Less than Once a Month
O Once a Month
O 2-3 Times a Month
O Once a Week
O 2-3 Times a Week
O Daily

In the last month, has there been a change in how often you interacted with [potential partner] compared to before?
O Much less often
O Less often
O No change
O More often
O Much more often
Since the last time you filled out our survey (approximately a month ago), have you talked about the romantic feelings you have towards [potential partner] with him/her?
O Yes
O No

In a few sentences, please describe the conversation(s) you have had in the last month with [potential partner] about your romantic feelings towards him/her.

Have you gone on romantic dates with [potential partner] since the last time you filled out our survey (approximately a month ago)?
O Yes (please enter how many dates) $\qquad$
O No

Are you interested in forming an official romantic relationship with [potential partner]?
O Yes
O No

Why are you not interested in forming an official romantic relationship with [potential partner]?
Are you still interested in forming a romantic relationship with [potential partner]?
O Yes
O No

Why are you no longer interested in forming a romantic relationship with [potential partner]?

When did you enter into a romantic relationship with [potential partner]? (Please give a date).
Please give us a brief description (a paragraph or two) of how you became attracted to [potential partner] and ended up in a romantic relationship with them.

Are you still in a romantic relationship with [potential partner]?
O Yes
O No

When did you and [potential partner] break up? (Please give a date).
Please rate the following statements.
"Our relationship makes me very happy."
O Strongly Disagree
O Disagree
O Somewhat Disagree
O Neither Agree nor Disagree
O Somewhat Agree
O Agree
O Strongly Agree
"I am committed to maintaining my relationship with my partner."
O Strongly Disagree
O Disagree
O Somewhat Disagree
O Neither Agree nor Disagree
O Somewhat Agree
O Agree
O Strongly Agree
Please rate the following statement. In general, how happy would you say you are these days?
O Very Unhappy
O Unhappy
O Somewhat Unhappy
O Neither Happy nor Unhappy
O Somewhat Happy
O Happy
O Very Happy


[^0]:    ${ }^{1}$ The survey also included an exploratory variable asking the participant whether they "clicked/felt chemistry" with the target. However, this variable was initially miscoded, so it is not included in any of the analyses or results reported below.

[^1]:    ${ }^{2}$ Because Sobel's test is conservative, it was not necessary to conduct a bootstrap analysis.

