

Every picture tells a story: A directive content analysis of the investment model on Instagram posts for new romantic relationships

by

Eric Thomas Goodcase

B.S., Central Michigan University, 2013

M.S., Purdue University Calumet, 2016

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

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Department of Family Studies and Human Services
College of Human Ecology

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Abstract

Instagram has become a popular social media site for individuals to post pictures and communicate about their lives to others, including their romantic relationships. These posts may be used to communicate the development of their relationship to their partner, close friends, and family, and thus, may also influence their relationship. Guided by the investment model (Rusbult, 1980), Instagram posts from 18 individuals in a new romantic relationship were coded using directive content analysis over the course of six months to determine how Instagram posts may reflect peoples' relationship investment, satisfaction, and view of alternatives to their current relationship. Results indicate that relationship investment and satisfaction are represented in a number of ways on Instagram while posts showing views of alternatives were rare. Other posts made included pictures of self, pictures of friends/family, documentation of life events, outside internet content, and animal pictures. This indicates that Instagram behavior may provide insight into relationship investment and relational outcomes, however, there were few relationship costs or view of alternatives present in Instagram posts indicating that Instagram presentation may be overly idealistic and not fully represent the investment model. Future Instagram research could benefit from archiving posts in real time, analyzing other Instagram behaviors, and asking questions about perceptions and motivations of Instagram behavior.

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Chapter 1 - Statement of the Problem

Romantic relationships are a normative life event for many individuals and, if healthy, are associated with psychological well-being (Fincham & Beach, 2006; Simon & Barrett, 2010), positive physical health (Johnson, Backlund, Sorlie, & Loveless, 2000), and reduced cortisol levels (Ditzen, Hoppmann, & Klumb, 2008). Unfortunately, over a third of adult couples experience relationship distress (Whisman, Beach, & Snyder, 2008), which is associated with poor physical and mental health outcomes (Kiecolt-Glaser, Bane, Glaser, & Malarkey, 2003; Robles, Slatcher, Trombello, & McGinn, 2014; Whisman 2007; Whisman 2013), as well as lower work performance (Whisman & Uebelacker, 2006) and satisfaction (Sandberg, Harper, Hill, Miller, Yorgason, & Day, 2013). Scholars suggest that understanding the courtship process is important to understanding the development and prevention of future relational distress (Clements, Stanley, & Markman, 2004; Wilson & Huston, 2013). One conceptualization of how relationships develop is the investment model (Rusbult, 1980), a theory that conceptualizes relationships by describing the likelihood of a relationship continuing as a function of satisfaction, comparison to alternatives of the relationship, and the amount of investment in the relationship. In today's era of ubiquitous technology (97% of Americans under the age of 50 use cell phones; Hiltin, 2018), though, these processes no longer happen solely in person.

According to recent research, 27% of individuals in relationships, including 45% of 18-29 year-olds, believe technology has impacted their romantic relationship (Lenhart & Duggan, 2014). For some, this impact was perceived to be positive. For example, studies have found that some individuals reported feeling closer to their partner thanks to technology (Lenhart & Duggan, 2014; Schade, Sandberg, Bean, Busby, & Coyne, 2013), that technology mediated communication was used to resolve conflict (Lenhart & Duggan, 2014), and that the

announcement of their relationship status using technology was positively associated with relationship satisfaction (Papp, Danielewicz, & Cayemberg, 2012). On the other hand, technology was also reported as a source of conflict between partners when it distracted from interpersonal communication or led to arguments about excessive technology use, online activity, jealousy, or other relationship problems (Fox, Osborn, & Warber, 2014; Lenhart & Duggan, 2014; Rueda, Lindsay, & Williams, 2015).

Although many people use online social networking sites to connect and share one's life with others (Rui & Stefanone, 2013), how people use social media can have differential effects on their romantic relationships. For example, social media use has been found to be associated with romantic jealousy (Frampton & Fox, 2018) and the potential for infidelity (Abbasi, 2019). Additionally, posting more selfies (a picture of oneself) has been found to be associated with lower romantic relationship satisfaction and conflicts about social media use (Ridgway & Clayton, 2016), but posting romantic selfies (a picture of themselves with their romantic partner) has been found to be positively associated with relationship commitment (Sabiniewicz, Borkowska, Serafińska, & Sorokowski, 2017). Interestingly, Instagram (used by approximately 35% of American adults, including 71% of 18-24 year-olds; Smith & Anderson, 2018) may be more effective than other social media sites at meeting users' social needs due to the allowances for people to caption and upload pictures onto their profile for others to see and comment on (Blight, Ruppel, & Schoenbauer, 2017; Pittman & Reich, 2016).

Given the unique interpersonal uses of social media, and of Instagram specifically, the purpose of this study was to explore how relationship development is expressed through individual's posts on Instagram, the extent to which the content of these posts reflect indicators of relationship development in line with the investment model (Rusbult, 1980), and their

reported levels of investment in the relationship. This could provide valuable information about how researchers can interpret Instagram behavior online, what kind of insight this information provides about relationship development, and what kind of outcomes could come based on different Instagram behavior.

Chapter 2 - Literature Review

Romantic Relationship Development in the Age of Social Media

As of January 2018, 69% of American adults use at least one social networking site with 88% of 18- to 29-years-olds considering themselves active users of at least one social networking site (Smith & Anderson, 2018). People use social networking sites to find entertainment and news; interact with others; and meet their emotional, cognitive, and social needs (Smith & Anderson, 2018; Wang, Tchernev, & Solloway, 2012). For example, individuals use the image-based social media site, Instagram, to document their lives, improve their status among others, express their creativity, surveil others (Sheldon & Bryant, 2016), as well as achieve social needs like interacting with friends and family (Blight, Ruppel, & Schoenbauer, 2017; Pittman & Reich, 2016). Additionally, individuals who use Instagram report lower levels of loneliness (Pittman & Reich, 2016) and a greater sense of community (Blight, Ruppel, & Schoenbauer, 2017) compared to individuals who use more text based social networking sites like Twitter. In the context of a romantic relationship, people may use Instagram for surveilling their partner's Instagram, documenting the relationship over time, improving the legitimacy or status of their relationship, expressing creativity within a relational context, and engaging in social interaction with their partner. Posting on Instagram is communicating with the world something about one's life and it is important to understand what messages a person is communicating about their relationship to their partner, their friends and family, and the rest of Instagram.

Social networking sites, like Instagram, are a platform for self-presentation (Rui & Stefonone, 2013); thus, how people engage in relational behaviors on Instagram provide insight into what is important to them and how they want others to see their relationship. For example, Instagram users can tag other individuals in pictures they upload (label individuals that appear in

pictures in a way that connects the post to another user) and/or include their location with the post. This could lead to behaviors such as monitoring who one's partner tags in posts, tagging one's partner in positive posts in order to reaffirm to their partner that they view the relationship positively, to show pictures of them with their partner to other people in a display of commitment, or to simply document activities with their partner for memories.

Users can also explore posts made by other users, make comments on posts, or 'like' posts by clicking a heart shaped icon, all of which could be a means of public communication between partners or an opportunity to monitor partner behavior. Other affordances for Instagram include the ability to send direct messages to other users (like one's partner), alter privacy settings so that only particular profiles can view your posts (which also changes who can see posts about one's relationships), and to use keywords and hashtags to group together and search for similar posts (potentially to build community through relationship posts). Although each of these Instagram behaviors may influence relationships differently or communicate different things about relationships, these behaviors may change or have different contextual meaning over the development of the relationship. Therefore, it is important to understand how relationships develop from the beginning through either increases in commitment or breaking up to understand the context of the Instagram posts.

Indicators of Romantic Relationship Development

As previously mentioned, how a romantic relationship develops could provide future insight into how relationship success or distress develops later on. The interdependence model (Kelley & Thibaut, 1978) and the investment model (Rusbult, 1980) each seek to explain how relationships continue over time. The interdependence model suggests that people remain in relationships due to their level of dependence on the relationship to meet their needs, which is

determined by their satisfaction with the relationship and the quality of alternatives to the relationship (Kelley & Thibaut, 1978). The investment model proposes that an important third factor, investment, is necessary for understanding relationship persistence when times get tough (Rusbult, 1980; Rusbult, Matrz, & Agnew, 1998). Investment is defined as rewards and resources put into the relationship that one cannot get back if the relationship were to end (Rusbult, 1980). This includes time put into the relationship, shared experiences, emotional connection, and concrete rewards like gifts (Rusbult, 1980).

Investment can be measured in a variety of ways such as time spent with partner, through experiencing normative relationship events and transitions (e.g., saying “I love you”, introducing one’s partner to friends or family, and even negative events such as the couple’s first argument or fight; Eastwick, Keneski, Morgan, McDonald, & Huang, 2018), and increasing accrument of constraints (i.e. anything that make it harder for a couple to cut ties; Stanley & Markman, 1992). Although the investment model has not been used to conceptualize Instagram behavior, Instagram and other social media platforms may be used by individuals to document the relationship in a way that would signify investment (e.g., posting pictures with partner, referring to partner as boyfriend or girlfriend in post captions, or documenting relationship events on Instagram). Instagram behavior may also be associated with the relationship satisfaction component of the investment model, as posting pictures with one’s partner is associated with satisfaction (Manvelyan, 2016; Sabiniewicz et. al, 2017).

Commitment emerges as a consequence of increasing satisfaction, a perception that alternatives to the relationship are of lower quality, and increasing investment which coincides with a transformation of motivation by which partners shift from acting solely in their own self-interest to behaving in ways that are for the good of the relationship, thereby maintaining it

(Rusbult, Martz, & Agnew, 1998). In line with the investment model tenants, studies have found that partners' commitment to a relationship is positively associated with a perception that the relationship is rewarding (Gere, McDonald, Joel, Spielmann, & Impett, 2013), mutual appreciation, and satisfaction with sacrifice (Canary & Stafford, 1992; Gordon, Impett, Kogan, Oveis, & Keltner, 2012; Monk, Vennum, Ogolsky, & Fincham, 2014). Along these lines, Instagram may be an outlet for individuals to give appreciation for their partner, acknowledge their partner's positive attributes, or other relationship maintenance strategies that can improve satisfaction through posted pictures, written captions of pictures, 'liking' or commenting on each other's posts. There is also a risk that spending time on social networking sites may detract from in-person relationship maintenance behaviors or that the online behavior does not display a transformation of motivation (focusing on one's own needs versus what is in the best interest of the relationship). For example, Drum (2016) found that some individuals believed their partner engaged in actions on social networking sites, including Instagram, that negatively impacted the relationship through a lack of loyalty/fidelity, supportiveness, openness, and personal connection. The fact that these negative actions were visible to others amplified the negative effect (Drum, 2016), potentially increasing the costs in the relationship through social disapproval.

Perceptions of one's relationship versus alternatives also influence commitment as expectations of perfection from one's partner (Stoeber, 2012) and perception of having high quality alternatives to the relationship (Gere et al., 2013; Rusbult, Martz, & Agnew 1998) are associated with lower levels of commitment. Along these lines, social networking behavior could negatively impact commitment. For example, Instagram use is associated with more social comparison, which can be related to low self-esteem (Stapleton, Luiz, & Chatwin, 2017),

dissatisfaction with body image (Tiggemann, Hayden, Brown, & Veldhuis, 2018), and may be an outlet for a person experiencing retrospective jealousy (jealousy that occurs after the termination of a relationship; Frampton & Fox, 2018). Individuals who engage in social comparison on Instagram may also have different views of relationship alternatives than those who do not, thus influencing commitment in the relationship (Rusbult, 1980).

Changes in investment, satisfaction, and view of alternatives over time in a romantic relationship may be reflected in the content of a person's Instagram posts. For example, as commitment increases there might be an increase in frequency and intensity of posts with signs of investment (e.g., pictures of shared activities; pictures of both members of the relationship; tagging their partner in captions, etc.), posts signaling satisfaction with themes of appreciation, positive attributions, relationship satisfaction, & sacrifice), and posts discussing their partner or relationship positively in comparison to others. Couples that do not increase in commitment or get closer to dissolution may make few posts that show signs of investment, satisfaction, or positive views of partner and relationship compared to alternatives. There may also be posts that allude to costs and decreased satisfaction or more favorable perceptions of alternatives. However, it is important to note that an individual's self-presented information on social networking sites can be controlled and tends to be idealistic (Rui & Stefonone, 2013); in fact, some individuals may be motivated to be deceptive on social media in order to achieve likes (Dumas, Maxwell-Smith, Davis, & Giulietti, 2017). This could mean that posts that could convey low satisfaction, positive perception of alternatives, or other potentially negative traits of the relationship may not be present in social media posts and positive posts about relationship could be potentially be present even though it does not reflect their actual feelings about the relationship.

Present Study

The investment model provides a framework for understanding commitment development in romantic relationships as a function of relationship satisfaction, perception of alternatives, and investment (Rusbult, 1980). The affordances of and motivations to use Instagram can allow users to engage in behaviors that document and potentially perpetuate investment, satisfaction, and view of alternatives as commitment changes. Therefore, Instagram could potentially be a valuable tool in understanding the investment of a couple. This could give researchers an understanding of how individuals in relationships use Instagram, how their Instagram behavior reflects their relationship investment, and how their self-reported investment relates to their Instagram behavior. The present study uses directive content analysis and correlations of the count variables to analyze how concepts from the investment model could be present in Instagram posts and whether these posts were related to self-reported levels of investment. The following research questions were analyzed:

1. What do individuals in new relationships post on Instagram?
2. What indicators of the investment model (investment, satisfaction, and/or quality of alternatives) are present in Instagram posts for individuals in new relationships?
3. How do changes in frequency of relationship themed Instagram posts relate to self-reported investment?

Chapter 3 - Method

Procedure

This study utilizes secondary data collected from a larger study tracking new couples over time. Individuals in romantic relationships that began within the previous six weeks were recruited online through social media. If they qualified for the study, participants signed up to participate and completed the pretest data between November 2017 and September 2018. They completed a pre-test (Appendix A), then filled out brief surveys once a week for 25 weeks (Appendix B), and ended with a longer post-test (same as appendix A). If participants broke up with their partner during the study, they were asked a different set of questions on the next weekly survey than the participants who were still in the same relationship. During the pre-test survey, participants were asked if they would agree to provide their Instagram account information for analysis in the study. Those who agreed provided their Instagram account information and the research lab's Instagram account followed the participant's account. Individuals who had their account set as private would then be given the option whether to approve the lab account's follow request so their posts could be analyzed. Researchers accessed participants' Instagram accounts in order to view and code participants' posts and coding took place during February 2019 and March 2019.

Participants

In order to qualify for the larger study, participants had to be in a romantic relationship that began within the last six weeks, be fluent in English, and be over 18 years of age. During the first round of data collection, 128 participants were recruited. However, because the current study focused on Instagram use, individuals without an Instagram account, or those who did not provide consent or their Instagram account information, were also excluded. T-tests revealed that

individuals with Instagram did not differ in any of the investment questions from those without Instagram.

A total of 40 individuals consented to allowing researchers to access their Instagram and provided their Instagram account information. However, six individuals provided account information that was incorrect, outdated, or were private and did not give the Lab's account permission to follow them. T-tests revealed no significant differences on variables of interest between those that gave permission to access their information and those that had Instagram but didn't give permission. An additional 12 participants broke up with their partner over the course of the study and one did not fill out enough surveys to determine relationship status and were also removed from analysis because of the possibility that they may delete pictures from past relationships. An additional two participants did not make an Instagram post over the course of the study and were also removed. It is important to note that individuals whose relationships ended before the study ended ($n = 12$) averaged significantly more total Instagram posts ($M = 30.5$, $SD = 20.95$) than the 19 participants who were in a relationship for the majority of the study ($M = 9.95$, $SD = 9.90$, $t[14.15] = 3.18$, $p < .01$) and significantly more pictures of self ($M = 8$, $SD = 5.57$) than participants who were in a relationship for the entirety of the 6 month study period ($M = 3.53$, $SD = 5.40$, $t[22.96] = 2.20$, $p < .05$). This indicates that there may be group differences in Instagram behavior between individuals that broke up during the study and those that were together for the duration of the study.

Thus, the final sample consisted of 18 participants with one participant participating twice a year apart with two separate relationships that lasted the entire 6 months of the study. Of the final 18, 13 individuals identified as White, two as Black, two as Asian or Pacific Islander, four as Latino or Hispanic, one as Native American (with three participants indicating multiple

racess or ethnicities). The sample consisted of 13 participants that were female and five that were male. The sample contained 18 different-gender romantic relationships and one participant declined to answer about the gender composition of their relationship. Participants ranged in age from 18 - 30 with an average age of 22.16 ($SD = 3.16$). One of the individuals had children and the remaining 17 indicated that they had no children. In terms of religion, eight identified as not being religious, six identified as part of the Church of Latter Day Saints, two as Catholic, one as Protestant Christian, one as Buddhist, and one participant identified as spiritual but did not indicate a particular religion. There were also a total of four couples in which both members participated in the study.

Measures

Investment

Investment in the relationship was measured in two ways. First, participants were asked about the time they invested in the relationship in the past week by answering: "Overall, what percentage of your free time did you spend with (partner's name) this week? Please estimate from 0-100%" and were provided a blank space that allowed them to type a number between 0 and 100. In addition to the amount of time invested, participants were asked three questions from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998). The questions were "My relationship makes me very happy," "I have put a great deal into our relationship that I would lose if the relationship were to end," and "I want our relationship to last forever." Each question was answered on a scale of 1 = strongly disagree to 7 = strongly agree. The data used for analysis were taken from the most recent weekly survey completed. The complete list of variables is included in Appendix B, the weekly survey.

Data Analysis Plan

Instagram posts of the participants were accessed through the research lab's Instagram account. Considering the intent of the analysis of the images and captions on Instagram was to make inferences about relationship development based on the investment model (Rusbult, 1980), a directive content analysis using the investment model to deductively analyze Instagram content analysis was used (Hsieh & Shannon, 2005; Krippendorff, 2013). Directive content analysis is used to confirm and extend a theory, in this case establishing the investment model in the Instagram space (Hsieh & Shannon, 2005). Directive content analysis allows for preexisting knowledge to be used to determine themes and those initial themes are then used to deductively analyze the data as well as themes coming inductively from the data (Hsieh & Shannon, 2005).

Only posts made during the course of the study were used for analysis. Each Instagram post contains one or multiple images with the option to post a text caption. The unit of analysis was entire post, but multiple codes could come from each post. In order to establish the presence of these codes, the following aspects of the posts were considered: who is in the picture, what was happening in the picture, what was written in the caption and who was tagged in the post. In order to determine whether individuals in the picture were indeed the participant's partner, all of the participants' posts were cross-referenced with their partner's reported name, gender, age, and race to make sure they matched up. If an individual pictured was not named, tagged, or referred to as their partner in the caption or the name did not match the one provided by the participant in the survey, they were not treated as the participant's partner in the coding process.

Definitions for each of the codes were developed using previous literature and/or came inductively from the data. Following procedures from directive content analysis (Hsieh & Shannon, 2005), first, the coders identified important concepts and themes from the investment

model and previous research on Instagram use to create initial codes (Potter & Levine-Donnerstein, 1999). Based on the literature review conducted, themes for analysis were any posts related to: investment (e.g., posting relationship events on Instagram, referring to partner as boyfriend or girlfriend, a “we” or “us” orientation in future plans), satisfaction (e.g., attributions of the partner, rewards and costs from the relationship, post signifying appreciation of the partner), and alternatives to the relationship (evaluations of one’s partner or one’s relationship in comparison to others). Potential non-relationship codes identified from literature were use of ‘selfies’ & documentation of life. After these codes were established, any posts that did not fit these initial set of themes were given a new code based on the content of the post and the inferred message (Hsieh & Shannon, 2005). All new codes were evaluated to determine whether they fit under an existing theme or if a new theme needed to be developed. The final codebook with all codes and definitions is in Table 1.

In following the suggestions of Lacy, Watson, Riffe, and Lovejoy (2015) for conducting content analysis, the coding team consisted of three individuals, the lead researcher who developed the protocol and two graduate students who were not part of the creation of the protocol. The lead researcher created a codebook with definitions of each code and examples (Weber, 1990), then trained the graduate students on the coding process and described the definitions of each code. Each member of the coding team independently coded each post using the established codebook while taking notes (Zhang & Wildemuth, 2009) throughout process. Coders achieved complete consensus on 77.66% of the codes. Disagreements in coding were resolved by the lead researcher, which, although increases potential for personal bias, maintains consistency and the intention of the written protocol (Lacy et al., 2015).

In order to determine how Instagram behavior was related to self-reported investment, codes were used as a count variable in the quantitative analysis. Correlations between codes and the three questions from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998) were calculated to determine if there was a relationship between the kinds of Instagram posts an individual made and the amount of investment in their relationship.

Chapter 4 - Results

Participants posted a total of 189 Instagram posts over the course of the six months they were participating in the study. The number of posts each participant made, the number of relational posts made, and their most common type of posts are represented in Table 2 with demographic information. Number of posts ranged from 0 to 41 with an average of 9.95 ($SD = 9.90$) posts per participant. A total of 50 (26.46%) of the total posts were coded as relational posts (i.e., mentioned or contained their partner or the relationship). The number of relational posts ranged from 0 -11 with an average of $M = 2.63$ ($SD = 2.77$) per participant. Participants posted their first relational post an average of 53.88 days into the study ($SD = 45.04$, Range = 7 - 158 days). By definition of investment used for this study, 100% of relational posts were coded as reflecting investment. Of these posts, 28% were also coded as satisfaction, and 6% were also coded as alternatives.

Investment

The public nature of Instagram makes it so any picture of, or post tagging, their partner signifies to the Instagram users' followers that the partner is an important part of their life and how they represent themselves online. Sending this message to their Instagram followers can be considered putting resources into the relationship, as it can be seen as a public statement of commitment, even a small one, to the partner. Therefore, any posts mentioning or picturing a person's partner were coded under the investment theme. A total of 17 out of the 19 participants (89.47%) of individuals made at least one post over the course of six months that signified their level of investment with their partner. Investment posts were broken into eight codes: 1) picture of partner, 2) picture of self and partner, 3) partner tagged or mentioned but not pictured, 4) picture with partner including friends and family, 5) shared activities, 6) relationship milestones,

7) future plans, and 8) affection. The degree of investment communicated varied between each of these codes and within each of these codes depending on the characteristics of the post and is discussed below.

Picture of Partner Alone

One Instagram behavior that signified one's investment with their partner was to post a picture only containing their partner online. A total of four participants posted 7 pictures of only their partner, which accounted for 10.61% of the total posts of those four participants. These posts also made up 14% of relationship posts made by all participants. These posts indicated a relatively small level of investment as there might not be any indication regarding who the person is or why they are important to the participant. For example, participant A posted a video of her male partner making a funny face and another video of him with a cat a few weeks later. Each of these posts occurred prior to any post referring to him as her partner. Some of these posts contained additional content in the picture or caption that contained different codes that indicated higher levels of investment. For example, participant R posted a photo of only her partner that also contained information in the caption that was coded as relationship milestones and future plans.

Picture of Self with Partner

In addition to posting pictures of only one's partner, participants also would post pictures of themselves with their partners. There were a total of 37 posts from 13 individuals. Almost 30% of total posts made by individuals who posted at least one picture of self with partner were coded in this category and 74% of the total relationship posts from all participants were coded as picture of self with partner. These posts may indicate a relatively higher level of investment due to the representation of both people together in the picture, which may be further reinforced by

what they are doing in the picture and what is said in the caption (other codes present). For example, participant J, who only posted twice on Instagram over the six months of the study, posted a picture of himself with his partner holding hands outside with a caption that included “I love you.” Participant B, included “#babe” in her caption that signaled that the person in the picture with her was her current partner.

Partner Tagged or Mentioned but Not Pictured

Instagram allows users to “tag” another Instagram user in their post to link them to the post as a means of communicating with them publicly. Only 2 participants made a total of 3 posts that mentioned or tagged their partner but did not include them in the picture making up 5.36% of their total posts and 6% of relationship posts for all participants. This is also visible for other users to see if they are browsing through one’s pictures. These tags can occur in the picture’s caption or on the picture itself. These posts can be seen as a relatively lower investment post as a person can be tagged without acknowledging him/her as his/her partner or including any additional information. For example, participant N posted a picture of her on a snowboard with the caption “This is me pretending I sat down just to take this shot. This *partner’s name omitted* after he realized I didn’t get his “sick” jump on film.” However, other content in the picture or caption that falls under other codes could increase the level of investment that is being communicated. For example, participant A posted a relationship milestone post mentioning their partner with the caption “*Partner name omitted* and I have been working on a collaborative project for the last few months that we are both pretty excited about - it's a baby.”

Picture of Partner with Friends and/or Family

As meeting friends and family is considered an increase in investment (Eastwick et al., 2018), pictures posted of one’s partner with friends and/or family can be further exemplifying

one's investment with their partner. A total of five individuals posted at least one picture of their partner with friends and/or family. Pictures coded as partner with friends and/or family ($n = 6$) made up 15.79% of the total posts of individuals that made at least one post coded this way and made up 12% of total relational posts. For example, participant E posted a picture of himself, his partner, and two other friends at an event all of them participated in. This communicates to individuals viewing the profile that one's partner is an important enough part of their life to be spending time with their friends and family as well.

Affection

Lastly, a total of eight individuals used Instagram to post pictures of themselves with their partners showing physical affection with a total of 20 posts. Posts in this category made up 34.48% of total posts from individuals who posted within this category and 40% of total relationship posts. This public display of affection can signal how invested the person is in the relationship as it can be seen as a clearer indication of relationship status and commitment level than simply a picture with the partner. These posts contained a multitude of different signs of affection such as holding hands, an arm around the shoulder, or kissing on cheek or lips. Examples of these posts included participant C posting a picture holding hands with her partner, participant K with his arm around his partner, and a post by participant F with her kissing her partner on the cheek and him kissing her on the cheek.

Shared Activities

A total of 12 participants posted pictures of themselves and/or their partner engaging in shared activities together. There were a total of 18 posts in this code which made up 11.84% of total posts from individuals who made posts in this category and 36% of total relational posts from all participants. These posts provide examples of time invested in the relationship and

things a person may do with their partner for fun that would be lost if the couple were to break up. These posts also documented events participated in by the couple. For example, participant N made a post with several pictures of her and her partner going to the symphony together and participant L made a post of her and her partner hiking.

Relationship Milestones

Just as previous studies have found that individuals use Instagram to document parts of their life (Sheldon & Bryant, 2016), participants also used Instagram to document milestones in their relationship publicly. A total of five individuals posted seven relationship milestones on Instagram making up 8.53% of their total posts and 14% of total relationship posts. This could include, but is not limited to declaring love or feelings for the person publicly, acknowledging an anniversary or length of dating, or publicly sharing an event like a pregnancy announcement or engagement. These posts usually contain a picture of the event itself (e.g. participant N posting photos from her engagement) or simply a picture of the two together with the evidence of the milestone coming from the caption (participant C who posted a picture of her and her partner with a caption stating “blessed with six months...with him!”).

Future Plans

A total of four participants made 6 posts on Instagram referencing their future with their partner. These posts made up 8.70% of total posts from individuals who posted within this category and 12% of total relationship posts from all participants. This could be a post acknowledging a concrete future plan or a more abstract posts indicating they wanted to spend the future or their entire future with their partner. For example, participant H posted on Valentine’s day that she “can’t wait to spend the rest of my Valentines (sic) days with you (referring to her partner).”

Satisfaction

In addition to investment, Instagram posts also provided insight into satisfaction of the relationship. A total of 10 participants made at least one post related to the satisfaction of their relationship for a total of $n = 14$ posts. Satisfaction themed posts made up 28% of relational posts and 7.41% of total posts. These posts were broken into four subthemes: 1) rewards, 2) appreciation, 3) positive partner attributions, and 4) costs and/or sacrifice.

Rewards

A total of seven participants made exactly one post on Instagram regarding the rewards they received from being in a relationship with their partner. These posts made up 15.56% of total posts made by individuals who had at least one post coded within this category, 50% of total satisfaction posts, and 14% of total relational posts. This was defined as any positive outcome that the participant posted about coming from their relationship with their partner. For example, participant I, a 19-year-old female, captioned a picture of her and her boyfriend with “I never thought I would ever be so comfortable around someone.” Participant M, a 21-year-old male, made a post with a picture of him and his partner on vacation that read “Always a great time and place with this girl.”

Appreciation

Instagram was also used as a public forum for expressing thanks to one’s romantic partner. A total of seven individuals expressed appreciation in a total of eight posts over the course of the study. Posts coded under appreciation made up 10.53% of total posts made by individuals who posted at least one appreciation post, 57.14% of satisfaction related posts, and 16% of total relationship posts. Considering expressing appreciation is indicative of satisfaction and can contribute to feelings of satisfaction for both individuals in the couple, these online

expressions of appreciation may also be important in understanding relationship satisfaction. These posts included an explicit ‘thanks’ or ‘thank you’ or simply expressed gratitude to their partner. For example, participant N posted a picture of herself and her partner with ‘thank you’ written in multiple languages. Some posts also included specific things for which the participant was thankful. For example, participant I posted “Thank you for being so loving and supportive of me.”

Positive Partner Attributions

Participants also used Instagram to acknowledge positive attributes of their partner. A total of three individuals created exactly one post describing their partner’s positive attributes. Posts of positive partner attributions made up 10% of total posts of individuals who made at least one post under this code, 21.43% of satisfaction posts, and 6% of total relationship posts. These posts were any posts that described positive traits about their partner. For example, participant H posted a picture with her partner with the caption “(partner’s name omitted) is hilarious, fun, spontaneous, smart, and so caring :) I’m so glad I can say he’s mine!”

Costs and/or Sacrifice

Conceptually one’s perceptions of the costs of the relationship and how favorably they view the sacrifices they make in their relationship influenced how they perceived the satisfaction of the relationship. One post from participant J did allude to a small cost in the relationship, but did so in a playful manner that indicated he was satisfied with the level of sacrifice. He posted a picture of him and his partner showing affection in the snow with the caption “I hate having my picture taken. I hate being cold. but I sure do love you!!”

Alternatives

Instagram could be used as a platform to post about comparisons between one's partner or relationship in relation to others. However, there were only two individuals who posted about their partner in relation to other people for a total of three posts. These posts made up 21.43% of total posts from individuals who had at least one alternative code, 6% of total relationship posts, and 1.59% of total posts. For example, participant M posted a picture of him and his partner with the caption "I know people say there's plenty of fishies in the sea, but your (sic) my Nemo" and participant B included the hashtag "#BoyfriendGoals" in a picture of her with her boyfriend indicating that her boyfriend was someone other boyfriends would aspire to be. There were no posts indicating their partner did not compare favorably to others or that compared their own relationship to other relationships.

Non-Relationship Posts

Pictures of Self

As previous research has indicated that Instagram pictures of oneself can be related to relational outcomes, pictures of self were also coded. Any post that contained a picture of the participant with no other people in it were coded in the "Just Self" subcode. These pictures could be 'selfies' of only the participant's face or they could be pictures of the participant alone engaging in some activity. A total of 13 participants had at least one picture coded in this category over the course of the study with a total of 67 posts. Pictures of this code made up 35.45% of total posts and 38.95% of total posts from individuals who made at least one post within this code. A second subcode was created for individuals that posted pictures of themselves with friends or family. Posts were coded into this category if they contained the participant with at least one other person who was a friend or family member and did not contain

the partner. A total of 8 participants had at least one post in this category for a total of 30 posts. Posts with this subcode made up 15.87% of all total posts 24.79% of total posts from individuals who posted at least one picture with this subcode.

Documentation

As mentioned previously, Instagram is a forum for individuals to document their lives in a way that allows others to see (Sheldon & Bryant, 2016). A total of 11 participants made posts within this category for a total of 30 posts. Documentation posts made up 15.87% of total posts and 20% of total posts from individuals who made at least one documentation post. Participants used Instagram as a means of sharing events, art, music, or food (such as participant A posting pictures of art); or documenting one's accomplishments. Posts were coded in this category if they met any of these criteria, but a distinction was made between relationship milestones and documentation so that these categories were mutually exclusive. For example, any post that was documenting important events in the relationship were coded as relationship milestones while documenting individual events that may include the partner (e.g., participant N posting about their partner's birthday) would be coded as documentation.

Pictures of Friends/Family

A common use of Instagram was also to post about friends or family. A total of 6 individuals created posts in this category for a total of 13 posts. Pictures of friends and family made up 6.88% of all total posts and 12.50% of total posts made by individuals who posted at least one picture of friend/family. Posts were coded in this theme if the picture or caption included a friend or family member, but the participant and the participant's partner were not present in the picture. Examples of these posts included participant A posting a picture of their

niece or participant C posting a picture of a friend with a caption describing how much she appreciated the friend.

Internet Content

Instagram can also be a venue for participants to share pictures or information that was found elsewhere on the internet. A total of two individuals made a total of 4 posts of content from other internet websites. Posting internet content made up 2.12% of total posts and 8.89% of total posts made by individuals who made at least one internet content post. Examples of these posts included participant O posting a picture of a saying that was important to her life or participant A posting an internet meme (an amusing or interesting item, such as a captioned picture or video, or genre of items that is spread widely online especially through social media; Merriam-Webster dictionary, 2019) from the television show “The Simpsons” to make a joke about her pregnancy.

Animal Posts

Lastly, Instagram users made posts with pictures of animals. A total of 4 individuals made a total of 16 animal post over the course of the study. Animal posts made up 8.47% of total posts and 19.75% of total posts for individuals who made at least one animal post. These were often pictures of pets such as participant A posting pictures of her cat or participant C posting a picture of her and a dog.

Preliminary Quantitative Results

Sample size was not sufficient to run structural equation modeling or regression analysis to see if particular kinds of posts were predictive of self-report relationship satisfaction, investment, favorable views of relationship to alternatives, and overall commitment at the end of the study. When sufficient data are collected, a full structural model will be conducted to see

how relational posts on Instagram predict future relationship commitment as defined through the investment model. To begin to understand the relationship between relationship posts and investment model variables, correlations were run between relationship posts, total Instagram posts, proportion of relationship posts multiplied by number of relationship posts, time investment, and the three investment model questions from the participant's most recent weekly survey. Correlations are represented in table 3. Although relational Instagram posts were not related to any of the investment model questions, relational posts were approaching significance ($p = .06$) in being positively related to time spent with partner.

Chapter 5 - Discussion

The current study sought to understand what kind of posts individuals in new relationships make on Instagram and establish whether components of the investment model were present in Instagram behaviors for these individuals. Participants in new romantic relationships used Instagram to display their investment in the relationship, share their level of satisfaction, and, very rarely, to compare their relationship to others. Participants also used Instagram to post pictures of themselves, friends, and family; to document parts of their life; to post existing content from the Internet; and post pictures of animals. Relationship posts made up 25% of total posts. The final goal of the study was to identify if there was a relationship between Instagram behavior reflecting the investment model and self-reported investment in the relationship. While Instagram behaviors were not correlated with self-reported investment there is some evidence that Instagram posts could be related to time spent together.

Considering investment is defined as resources put into the relationship that a person cannot get back (Rusbult, 1980), a public social media forum like Instagram can play an important role in the investment process. When an individual makes a post on Instagram related to their relationship, even though it can be deleted later, it is a public announcement about the relationship that reaches a large audience, often including their partner. Instagram space could be considered a resource that individuals are allocating to their relationship and thus, by definition, increasing investment. It is possible that these public announcements serve as a relationship event similar to those discussed by Eastwick and colleagues (2018) that would make it more difficult to break up (e.g., introducing partner to friends or family). In fact, a participant who broke up with their partner and therefore was not a part of the final sample referred to her partner as “passing the Instagram boyfriend test” in a post indicating that she may have been aware of

the significance of these posts. Therefore, theoretically, relationship posts on Instagram might not only reflect one's investment and how they want others to see the investment of the relationship, but also increase investment (intentionally or unintentionally). Future research can further delineate whether Instagram behavior is seen as an investment or whether it influences future investment.

However, it is important to note that all investment posts are not created equal and different posts reflect varying levels of portrayed investment depending on whether or not the partner was in the picture, what was happening in the picture, and what, if anything, the poster says to or about their partner in the caption. For example, pictures of affection and pictures/captions indicating relationship milestones or future plans are sending a stronger message that the relationship is committed and moving from self-interest motivated behavior to relationship motivated behavior (Rusbult, Martz, & Agnew, 1998) than pictures of just their partner without themselves in the picture. This indicates that participants, intentionally or unintentionally, communicate messages about the amount of investment or commitment in the relationship through the content of their Instagram posts, though more research is needed to better understand to what degree portrayed investment coincides with felt investment in the relationship.

In addition to understanding the content of the posts, it is also important to consider the context of an individual's Instagram. There is a diversity in motivation for Instagram use (Sheldon & Bryant, 2016); thus, two similar posts may be communicating different messages or have stronger meaning. For example, participant Q is, according to her profile, an aspiring model and most of her pictures are only of herself and tag professional photographers indicating that they are professional pictures for her career development. Therefore, her posting a picture

with her partner only once out of 24 posts over the course of the study may indicate stronger investment than another person who posted a similar proportion of relational and total posts that uses their Instagram for mainly social purposes because she is devoting part of a mostly professional resource to signaling investment with her partner. Future research should consider how the context of how a person uses Instagram influences how posts are intended and interpreted.

Participant characteristics may also play a role in how these behaviors appeared via social media. For example, the three participants who got engaged (two of them to each other) each identified as members of the Church of Latter Day Saints and considered themselves very religious and previous research has shown that it is common for some religions such as conservative protestants and members of the Church of Latter Day Saints have different norms around marriage (Xu, Hudspeth, & Bartkowski, 2005). This may indicate cultural differences in investment and commitment that may influence how investment model concepts appeared on Instagram based on cultural norms (i.e., stronger investment and/or commitment earlier in the relationship could lead to earlier or more frequent relational posts on Instagram). Further research can seek to understand how cultural factors and social identities (e.g., religion, race, sexual orientation, age) play a role in Instagram and how these Instagram behaviors relate to relational outcomes.

Although theoretically we can identify how posts reflect investment and could affect investment, the motivation of the participants making relationship posts is still unknown. Based on previous literature on Instagram use, the desire to utilize Instagram as a means of documenting one's life (Sheldon & Bryant, 2016) may contribute to the use of Instagram in ways that document investment throughout the development of the relationship. There may be

motivation to record the history of the relationship on Instagram. Additionally, participants may be motivated to intentionally increase the investment of their relationship. Considering many individuals utilize Instagram for surveillance purposes (Sheldon & Bryant, 2016) and there is evidence that social media use can be related to relationship jealousy (Fox, Osborn, & Warber, 2014), posting pictures with their partner may broadcast to other Instagram users that they and their partner are not available to others. Additional research may begin to understand one's motivations for making investment Instagram posts and how these motivations are related to relational outcomes.

Instagram was also a place for participants to share how satisfied they are in their relationship. Although only 28.07% of relationship posts indicated anything related to relationship satisfaction, these posts provide insight into the participants' feelings about their partner and their relationship. Additionally, considering that expressing appreciation, having positive attributions towards one partner, and being satisfied with one's level of sacrifice may impact one's relationship satisfaction and commitment in an offline space (Canary & Stafford, 1992; Gordon, Impett, Kogan, Oveis, & Keltner, 2012; Monk, Vennum, Ogolsky, & Fincham, 2014), Instagram posts that seek to accomplish these goals may also increase satisfaction and therefore commitment of the relationship. Additionally, because previous literature has shown that individuals utilize Instagram to engage in social interactions and achieve social goals (Pittman & Reich, 2015), these posts may be considered intentional pieces of communication meant to improve their relationship. Participants may also make these posts to improve the social status of their relationship, similar to how individuals use Instagram to improve how others view them (Sheldon & Bryant, 2016). Future research can seek to identify explicitly what messages Instagram users are sending by making posts signifying satisfaction.

Although there was insufficient power to run a full structural model to assess how Instagram behavior predicts investment, satisfaction, and alternatives, the results that individuals who were in a relationship for the entire six months posted significantly fewer overall posts and significantly fewer pictures of just themselves than individuals who broke up over the course of the study, may indicate that individuals post more on Instagram when they are less committed in the relationship. This could indicate a shift in self-interest motivated Instagram behaviors (e.g., posting pictures of self, documentation, outside internet content) to relationship-oriented Instagram behaviors (e.g. posts of relationship investment, satisfaction) similar to the shift described by Rusbult, Martz, & Agnew (1998) in which individuals in relationships move from self-motivated behavior to more relational motivated behavior. However, more research is necessary before making any conclusions as the sample size is very small, correlations between investment questions and relationship Instagram post were not significant, and there are a multitude of potential confounding variables.

Theoretical & Methodological Implications

Although Instagram was a space to make posts about investment and satisfaction of their relationships, there was no evidence from Instagram posts about the negatives of their relationships. This is unsurprising as social media is often a means for idealistic self-presentation (Rui & Stefonone, 2013). Therefore, while Instagram may provide some insight into one's satisfaction of the relationship it is probably not be a fully accurate representation of an individual's view of his/her relationship. Individuals experiencing costs in their relationship may address these negative aspects offline or ignore them. This motivation to hide negatives in the relationship may also indicate that individuals may be motivated to over-emphasize the positives

in the relationship. Future research on relationship behavior on Instagram should acknowledge this limitation when making conclusions about relationship development using Instagram

Just as negative aspects of the relationship did not show up in Instagram posts, one's view of alternatives were not very prominent in Instagram posts. Though how one views their relationship in relation to others is an important component of the investment model, it is not a prominent part of how individuals present their relationships to others on Instagram. This may be because posting about alternatives does not seem to coincide with any previously mentioned motivations for Instagram use or have a clear connection to improving the relationship in the same way posts about investment and satisfaction do. View of alternatives may still play a prominent role in Instagram behaviors such as surveilling others considering that social comparisons on Instagram have been associated with negative individual outcomes (Frampton & Fox, 2018; Stapleton, Luiz, & Chatwin, 2017; Tiggemann, et al., 2018). Therefore, it is possible that social comparisons of relationships or other potential partners and the accessibility of many different profiles could impact commitment.

Future research can utilize a different theoretical approach to understanding Instagram behavior or utilize survey data to assess how other Instagram behaviors (e.g., viewing potential partners' profiles, sending direct messages, commenting on pictures) related to investment, satisfaction (including costs and negatives), and view of alternatives influences commitment. For example, asking about surveillance behaviors, specifically how often one views alternatives or other relationships on Instagram, would further illustrate how Instagram behavior is related to perceptions of alternatives. Additionally, it would be important to ask about perceptions of and motivations for posting, liking/commenting, surveillance, and other Instagram behaviors, as well

as how they perceive their partner's Instagram behavior to create a better understanding of how individuals create meaning around Instagram behavior and how that influences the relationship.

Additionally, considering posts and comments can be deleted, future research analyzing Instagram posts should utilize software to archive posts in real time instead of retrospectively analyzing them. For example, pictures from participants I and J, who broke up after the study, were no longer present a few weeks after analysis was conducted. This indicates that there may have been more data from other participants that were deleted over the course of the study. Future research can also assess post deleting behavior and how common it is to delete posts about ex-partners and motivations for doing so. This will provide further information about how Instagram behaviors relate to investment in relationships that persist and ones that dissolve.

Limitations

Although the current study provides insight into the investment model in Instagram behavior, there are a number of limitations to the study. First of all, the sample size was small, even for a qualitative study, and data stopped being collected due to time constraints, not because saturation was reached. Additionally, there is a possibility of response bias as all participants were recruited through social media, making them perhaps more likely to be active social media users. Also, all participants actively decided to volunteer to participate and not all individuals with an Instagram agreed to share their profile for the study. The study also did not have sufficient sample size to make comparisons across groups and analyze how behavior varies for people depending on social position (e.g. race, religion, socio-economic status).

Instagram posts were accessed for a one-month period after most of the posts had been made. This is problematic as Instagram allows for users to delete past photos and many of the participants completed the study several months before analysis began. Also, this study was

limited in only analyzing posting behavior on Instagram. Information that could come from interactions between other Instagram users, potentially including their partner, through comments and private messages or Instagram behaviors such as surveillance behaviors were not analyzed and could provide valuable information about their romantic relationship. Lastly, the study only focused on Instagram behavior and how individuals portray their relationship on social media may be different on other social media websites

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Appendix A - Pre-Test and Post-Test Survey

ONLINE INTAKE QUESTIONNAIRE

____ I will complete the online questionnaire by myself – with nobody else looking on. (If there are other people looking at the computer with you right now, please make sure that they have left before you put your initials in the box to the right.)

____ I will answer the questions as openly and as honestly as I can (initial the box to the right).

[General Decision Measures]

(Need for Cognition)

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

1. I would prefer complex to simple problems.
2. Thinking is not my idea of fun.
3. I prefer to think about small, daily projects to long-term ones.
4. I like tasks that require little thought once I've learned them.
5. I really enjoy a task that involves coming up with new solutions to problems.
6. Learning new ways to think doesn't excite me very much.
7. I prefer my life to be filled with puzzles that I must solve.
8. The notion of thinking abstractly is appealing to me.
9. I feel relief rather than satisfaction after completing a task that required a lot of mental effort.
10. It's enough for me that something gets the job done; I don't care how or why it works.

(Cognitive Reflection Task)

- (a) A hotdog and a coke cost \$3.50 in total. The hotdog costs three dollars more than the coke. How much does the coke cost? ____ cents
- (b) If it takes 10 people 10 minutes to assemble 10 office chairs, how long would it take 100 people to assemble 100 office chairs?
- (c) In a forest, there is a patch of moss. Every day, the patch doubles in size. If it takes 64 days for the patch to cover the entire forest, how long would it take the patch to cover half the forest? ____

(Self Control Scale)

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

Please indicates how much each of the following statements reflects how you typically are.

1. I am good at resisting temptation
2. I have a hard time breaking bad habits
3. I am lazy
4. I say inappropriate things
5. I do certain things that are bad for me, if they are fun
6. I refuse things that are bad for me
7. I wish I had more self-discipline
8. People would say that I have iron self-discipline
9. Pleasure and fun sometimes keep me from getting work done
10. I have trouble concentrating
11. I am able to work effectively toward long-term goals
12. Sometimes I can't stop myself from doing something, even if I know it is wrong
13. I often act without thinking through all the alternatives

(Perceived Stress)

1	2	3	4	5	6	7
Never						Very Often

1. In the last month, how often have you felt that you were unable to control the important things in your life?
2. In the last month, how often have you felt confident about your ability to handle your personal problems?
3. In the last month, how often have you felt that things were going your way?
4. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

(Subjective Wellbeing)

1. In most ways, my life is close to ideal
2. I am satisfied with my life
3. If I could live my life over, I would change almost everything

(Health)

In general, would you say your health is:

1	2	3	4	5	6	7
Poor						Excellent

(Early-Life Unpredictability- Szepeswol et al., 2015)

1	2	3	4	5	6	7
Never						Many Times

In your early childhood, did your parents or legal guardians change jobs or occupational status?

In your early childhood, were there changes to your place of residence?

In your early childhood, were there changes in your familial circumstances (divorce or separation of parents, parents starting new romantic relationships, parents leaving the home, etc.)?

(Early-Life Harshness- Szepeswol et al., 2015)

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

My family usually had enough money for things when I was growing up.

I grew up in a relatively wealthy neighborhood.

I felt relatively wealthy compared with the other kids in my school.

My family struggled financially while I was growing up.

[General Relationship Measures]

(Attachment Style)

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

1. It helps to turn to my romantic partner in times of need.
2. I need a lot of reassurance that I am loved by my partner.
3. I want to get close to my partner, but I keep pulling back.
4. I find that my partner(s) don't want to get as close as I would like.
5. I turn to my partner for many things, including comfort and reassurance.
6. My desire to be very close sometimes scares people away.
7. I try to avoid getting too close to my partner.
8. I do not often worry about being abandoned.
9. I usually discuss my problems and concerns with my partner.
10. I get frustrated if romantic partners are not available when I need them.
11. I am nervous when partners get too close to me.
12. I worry that romantic partners won't care about me as much as I care about them.

(Destiny Versus Growth Beliefs)

Please rate the following items using the scale below:

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

1. Potential relationship partners are either compatible or they are not.
2. A successful relationship evolves through hard work and resolution of incompatibilities.
3. Potential relationship partners are either destined to get along or they are not.
4. It takes a lot of time and effort to cultivate a good relationship.
5. The success of a potential relationship is destined from the very beginning.
6. Challenges and obstacles in a relationship can make love even stronger.
7. To last, a relationship must seem right from the start.
8. Problems in a relationship can bring partners closer together.

(Deliberative Decision Style)

When I make decisions about dating and romantic relationships:

1. Developing a clear plan is very important to me
2. I tend to weigh out all the pros and cons
3. I take the time to think things through
4. Before making a decision, I usually think about the goals I want to achieve
5. I prefer making detailed plans rather than leaving things to chance
6. I usually have clear, explainable reasons for my decisions

(Sexpectations)

Please rate the following items using the scale below:

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

1. A couple is either destined to have a satisfying sex life or they are not.
2. In a relationship, maintaining a satisfying sex life requires effort.
3. Struggles in a sexual relationship are a sure sign that the relationship will fail.
4. Successful sexual relationships require regular maintenance.
5. Troubles in a sexual relationship signify a poor match between partners.
6. Communicating about sexual issues can bring partners closer together.
7. Experiencing sexual problems is a sure sign that a couple is not sexually compatible.
8. Acknowledging each other's differing sexual interests is important for a couple to enhance their sex life.
9. An unsatisfying sex life suggests that the relationship was never meant to be.
10. In order to maintain a good sexual relationship, a couple needs to exert time and energy.

(Fear of Being Single)

1. It scares me to think that there might not be anyone out there for me. _____
2. I feel it is close to being too late for me to find the love of my life. _____
3. I feel anxious when I think about being single forever. _____
4. I need to find a partner before I'm too old to have and raise children. _____
5. If I end up alone in life, I will probably feel like there is something wrong with me. _____
6. As I get older, it will get harder and harder to find someone. _____

(Sociosexual Orientation)

With how many different partners have you had sex within the past 12 months?

- | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| 0 | 1 | 2 | 3 | 4 | 5-6 | 7-9 | 10-19 | 20 or more |

With how many different partners have you had sexual intercourse on one and only one occasion?

- | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| 0 | 1 | 2 | 3 | 4 | 5-6 | 7-9 | 10-19 | 20 or more |

With how many different partners have you had sexual intercourse without having an interest in a long-term committed relationship with this person?

- | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| 0 | 1 | 2 | 3 | 4 | 5-6 | 7-9 | 10-19 | 20 or more |

Sex without love is OK.

I can imagine myself being comfortable and enjoying "casual" sex with different partners.

I do not want to have sex with a person until I am sure that we will have a long-term, serious relationship.

How often do you have fantasies about having sex with someone you are not in a committed romantic relationship with?

- 1 – never
- 2 – very seldom
- 3 – about once every two or three months
- 4 – about once a month
- 5 – about once every two weeks
- 6 – about once a week
- 7 – several times per week
- 8 – nearly every day
- 9 – at least once a day

How often do you experience sexual arousal when you are in contact with someone you are not in a committed romantic relationship with?

- 1 – never
- 2 – very seldom
- 3 – about once every two or three months
- 4 – about once a month
- 5 – about once every two weeks
- 6 – about once a week
- 7 – several times per week
- 8 – nearly every day
- 9 – at least once a day

In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?

- 1 – never
- 2 – very seldom
- 3 – about once every two or three months
- 4 – about once a month
- 5 – about once every two weeks
- 6 – about once a week
- 7 – several times per week
- 8 – nearly every day
- 9 – at least once a day

(Sex Drive)

1. I have a strong sex drive.

2. I experience sexual desire extremely frequently.

(Mating Strategies: Casual vs. Long-Term)

1. My romantic relationships are nearly always committed and serious.
2. In considering possible romantic partners, I typically think about their "long-term" potential.
3. I prefer a long-term relationship with one partner.

(Self-Perceived Mate Value)

1. I am a desirable dating partner.
2. In general, I tend to have many options for romantic partners.
3. Members of the opposite sex that I like tend to like me back

(Dating History)

1. In your life, with approximately how many people have you had a dating relationship that lasted at least three months? _____
2. How long has it been (in months) since your most recent relationship that lasted more than three months ended? _____
3. How long has it been since you last had any romantic physical contact (e.g., kissing) or sexual contact with someone? Answer in days (take your best guess):

(Dating Ideals)

For a person to be your IDEAL romantic partner:

How *important* is it that they have each of the following traits? (1 = Not at all important, 7 = Very important)

- Warm
- Responsive to my needs
- Open & disclosing
- Kind & affectionate

How *important* is it that they do NOT have each of the following traits? (1 = Not at all important, 7 = Very important)

- Controlling & dominant
- Complaining
- Irrational

- Critical & judgmental

(Dating Expectations)

How *rare* do you think it is to find a romantic partner:

Who has each of the following traits? (1 = Not at all rare, 7 = Very rare)

- Warm
- Responsive to my needs
- Open & disclosing
- Kind & affectionate

Who does NOT have each of the following traits? (1 = Not at all rare, 7 = Very rare)

- Controlling & dominant
- Complaining
- Irrational
- Critical & judgmental

[Relationship-Specific Measures]

These next questions will ask you about your new dating relationship. You should think of a specific person who you started dating *within the last four weeks*.

What is the name of your new dating partner? _____

[Investment Model Scale]

1. Please indicate the degree to which you agree with each of the following statements regarding your new dating relationship by using the following scale:

(Satisfaction)

1	2	3	4	5	6	7	8	9
Disagree Completely		Disagree		Agree Somewhat		Agree		Agree Completely

1. _____ I feel satisfied with our relationship.
2. _____ My relationship is much better than others' relationships.

3. ____ My relationship is close to ideal.
4. ____ Our relationship makes me very happy.
5. ____ Our relationship does a good job of fulfilling my needs for intimacy, companionship, etc.

(Alternatives)

1	2	3	4	5	6	7	8	9
Disagree Completely		Disagree		Agree Somewhat		Agree		Agree Completely

1. ____ The people other than my partner with whom I might become involved with are very appealing.
2. ____ My alternatives to our relationship are close to ideal (dating another, spending time with friends or on my own, etc.)
3. ____ If I weren't with my dating partner, I would do fine- I'd find another appealing person to date.
4. ____ My alternatives are attractive to me (dating another, spending time with friends or on my own, etc.)
5. ____ My needs for intimacy, companionship, etc., could easily be fulfilled in an alternative relationship.

(Investment)

1	2	3	4	5	6	7	8	9
Disagree Completely		Disagree		Agree Somewhat		Agree		Agree Completely

1. ____ I have put a great deal into our relationship that I would lose if the relationship were to end.
2. ____ Many aspects of my life have become linked to my partner (recreational activities, etc.) and I would lose all of this if we were to break up.
3. ____ I feel very involved in our relationship- like I have put a great deal into it.

4. _____ My relationships with friends and family members would be complicated if my partner and I were to break up (e.g. my partner is friends with people I care about).

5. _____ Compared to other people I know, I have invested a great deal in my relationship with my partner.

1	2	3	4	5	6	7	8	9
Disagree Completely		Disagree		Agree Somewhat		Agree		Agree Completely

(Overall Commitment)

1. _____ I want our relationship to last a very long time.

2. _____ I am committed to maintaining my relationship with my partner.

3. _____ I would not feel very upset if our relationship were to end in the near future.

4. _____ It is likely that I will date someone other than my partner within the next year.

5. _____ I feel very attached to our relationship- strongly linked to my partner.

6. _____ I want our relationship to last forever.

7. _____ I am oriented toward the long-term future of my relationship (for example, I imagine being with my partner several years from now).

[Partner-Focused]

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

1. _____ My partner has put a great deal into our relationship that he/she would lose if the relationship were to end.

2. _____ Many aspects of my partner's life have become linked to my own (recreational activities, etc.) and he/she would lose all of this if we were to break up.

3. _____ My partner is very involved in our relationship.

4. _____ My partner's relationships with his/her friends and family members would be complicated if we were I were to break up (e.g. I am friends with people my partner cares about).

5. _____ Compared to other partners I know, my partner has invested a great deal in his/her relationship with me.

- 14. My partner is my primary source of emotional support.
- 15. When I am away from my partner, I feel down.
- 16. My partner is the person that I would actually count on to always be there for me and care about me no matter what.

[Sexual Frequency]

How many times have you engaged in sex with _____?

- _____
- NA: Not sexually active

[Sexual Desire, Ideals, and Satisfaction – NAs skip italicized items]

1	2	3	4	5	6	7	NA
Not at all						Very Much	

I enjoy

thinking about having sex with my partner.

My desire for sex with my partner is strong.

It is hard for me to get in the mood for sex with my partner.

I lack the desire necessary to pursue sex with my partner.

My partner is as close to ideal as a sexual partner as I ever expect to find.

My partner is as close to ideal as a relationship partner as I ever expect to find.

Please rate your sex life on the following dimensions:

- | | | | | | | | |
|----|---------------------|---|---|---|---|-------------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. | <i>bad</i> | | | | | <i>good</i> | |
| 2. | <i>unpleasant</i> | | | | | <i>pleasant</i> | |
| 3. | <i>negative</i> | | | | | <i>positive</i> | |
| 4. | <i>unsatisfying</i> | | | | | <i>satisfying</i> | |
| 5. | <i>worthless</i> | | | | | <i>valuable</i> | |

[Passionate and Companionate Love]

- I would feel deep despair if my partner left me.
- Sometimes I feel I can't control my thoughts; they are obsessively on my partner.
- I would rather be with my partner than with anyone else.
- I'd get jealous if I thought my partner were falling in love with someone else.
- I want my partner... physically, emotionally, mentally.
- I have an endless appetite for affection from my partner.
- My partner always seems to be on my mind.
- I eagerly look for signs indicating my partner's desire for me.
- I possess a powerful attraction for my partner.
- I get extremely depressed when things don't go right in my relationship with my partner.
- I feel that I can confide in my partner about virtually anything.
- I find it easy to ignore my partner's faults.
- I would do almost anything for my partner.
- I would forgive my partner for practically anything.
- I would greatly enjoy being confided in by my partner.
- I care about my partner.
- I feel that I can trust my partner completely.

[Contributors to Forecasted Relationship Quality]

[Forecasted Relationship Quality]

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- I expect that our relationship has a good future
- In the future I expect that my relationship with my partner will get worse

I expect that I will experience more problems in this relationship in the future

I expect that this relationship will go downhill in the future

I expect that I will be happy with this relationship in the future

In the future I expect that my relationship with my partner will get better

I expect that our sexual relationship has a good future.

[Anticipated Compatibility]

I believe that my partner and I make a good long-term match.

I can see my partner fitting in well with my future life plans.

I think that my partner and I will remain compatible with each other far into the future.

[Perceived Similarity – General. Adapted from Tidwell et al., 2012]

My partner and I have similar personalities.

My partner and I have similar values.

My partner and I have similar interests.

My partner and I have a lot in common.

[Perceived Similarity – Specific. Twelve items from Murray et al., 2002]

How important is each of the following value **for you** as a guiding principle in your life?

- Equality
- Self-respect
- Love
- Relationships
- Independence
- Ambition
- Success
- A varied life
- Family life
- Self-discipline
- Respect for tradition
- Wealth

How important is each of the following value **for your partner** as a guiding principle in their life?

- Equality
- Self-respect
- Love
- Relationships
- Independence
- Ambition
- Success
- A varied life
- Family life
- Self-discipline
- Respect for tradition
- Wealth

[Perceived Traits – Adapted from Murray, for Steph]

Please rate your partner on the following traits. How well do these traits describe your partner?

(1 = Not at all, 7 = Completely)

- Warm
- Moody
- Controlling & dominant
- Responsive to my needs
- Complaining
- Irrational
- Open & disclosing
- Critical & judgmental
- Kind & affectionate

[Social Network Support]

Overall, how much actual discouragement or encouragement do you get from others to continue to date?

Overall, to what degree do you think others view you as a perfect couple that should marry someday?

[Perceived Partner Responsiveness]

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all true						Completely true
--------------------	--	--	--	--	--	--------------------

My partner:

Sees the “real” me.

“gets the facts right” about me.

Esteems me, shortcomings and all.

Knows me well.

Values and respects the whole package that is the “real” me.

Understands me.

Really listens to me.

Expresses liking and encouragement for me.

Seems interested in what I am thinking and feeling.

Values my abilities and opinions.

Is “on the same wavelength” with me.

Is responsive to my needs.

[Perceived Goal Congruence]

1. I feel like my partner and I are “on the same page” in terms of the goals we pursue together.
2. When it comes to pursuing goals as a couple, I feel like my partner and I are “of one mind”.
3. I’m confident that my partner and I generally share the same goals for our relationship.
4. Sometimes I feel like my goals are incompatible with my partner’s goals.
5. Making decisions with my partner can be difficult because we have very different goals.

[Relationship demographics]

1. Approximately how many WEEKS AGO was your first date with your current partner?

2. Approximately how many MONTHS AGO was your first date with your current partner?

3. What is your relationship status?

- a. Single
 - b. Casually dating
 - c. Seriously dating
 - d. Engaged
 - e. Common-law
 - f. Married
4. Do you live together?
- a. Yes___
 - b. No_____
5. What is your age? _____
6. The age of your partner? _____
7. Your gender?
- a. Male
 - b. Female
 - c. Prefer not to say
8. Your partner's gender?
- a. Male
 - b. Female
 - c. Prefer not to say
9. How *sexually* exclusive is your relationship with your partner?

1	2	3	4	5	6	7
Completely exclusive (sexual contact with others is not okay)						Completely open (no limits on sexual contact with others)

10. How *emotionally* exclusive is your relationship with your partner?

1	2	3	4	5	6	7
Completely exclusive (romantic						Completely open (no limits on

feelings for
others are
not okay)

romantic
feelings for
others)

[Instagram Component]

Do you have an Instagram account? Yes/No

[If Yes] Our lab is interested in how social media plays a role in people's dating experiences.

With your permission, we would like to follow you on Instagram from our lab account, "Relationship Decisions". Your Instagram data would be used for research purposes only, and would never be shared outside of our research team.

Are you comfortable allowing our lab's Instagram account to follow yours? If not, that's completely okay—declining will not affect your involvement in the study in any way.

- a) Yes, you may follow me on Instagram for research purposes. My Instagram handle is: _____

- b) No, I'd rather not share my Instagram information

[General Demographics]

What is your race? _____

What is your nationality? _____

Are you a native English speaker? Y/N

What is your religious affiliation? 1 = Buddhist; 2 = Catholic; 3 = Hindu; 4 = Jewish; 5 = Muslim; 6 = Protestant; 7=Latter-day Saints, 8 = Not Religious, 9 = Other (Please specify)_____

How would you describe your religious involvement? 1 = not at all involved, 7 = extremely involved

How would you describe your political views? 1 = extremely conservative, 7 = extremely liberal

What is your highest level of education? 1 = Some high school; 2 = High school; 3 = Some college; 4 = College; 5 = Some graduate school; 6 = Graduate school

Do you have any children? Yes/no

If so, how many children do you have? _____

Are your parents divorced? Y/N

What is the highest education level achieved by your mother? 0 = "Some high school" 1 = "High school degree" 2 = "Some college" 3 = "Associate's degree" 4 = "Bachelor's degree" 5 = "Graduate degree"

What is the highest education level achieved by your father? 0 = "Some high school" 1 = "High school degree" 2 = "Some college" 3 = "Associate's degree" 4 = "Bachelor's degree" 5 = "Graduate degree"

What is your mother's occupation? _____

What is your father's occupation? _____

[Survey Questions]

1. IMPORTANT! Please answer honestly: it is extremely important for our research. Your compensation will NOT be affected by your response.

Which of the following best represents how you approached this survey?

1. I tried hard to answer each question honestly and accurately
2. I answered relatively quickly, but still honestly and accurately
3. I rushed through the survey, skimming the questions as I went
4. I chose random answers just to get to the end of the questionnaire

2. Sometimes people begin participating a study, and then find that they do not actually meet the criteria for the study. That is okay, but it is important for us to know as it may affect our results. Please be truthful: are you currently in a new dating relationship? You will be entered into the gift card draw for this survey regardless of your response.

1. Yes, I am in a new dating relationship that began fewer than four weeks ago
2. I am in a dating relationship, but it began more than four weeks ago.
 - a. How many weeks ago was your first date? _____
3. No, I am not dating anyone right now

3. Do you have any other comments you would like to leave for the researchers?

Appendix B - Weekly Survey

WEEKLY RELATIONSHIPS SURVEY

(Subjective Wellbeing)

4. The conditions of my life were excellent this week.
5. I was satisfied with my life this week.

(Stress)

1	2	3	4	5	6	7
Never						Very Often

5. In the last week, how often have you felt that things were going your way?
6. In the last week, how often have you felt difficulties were piling up so high that you could not overcome them?

(Relationship Status)

Are you still dating X?

1. Yes, we are still dating
2. No, we stopped dating
3. It's complicated

In-Relationship Questionnaire (1 and 3)

(Time Investment)

Overall, what percentage of your free time did you spend with X this week? Please estimate from 0-100%. _____%

(Specific Investments)

Which of the following activities did you engage in this week, if any? Please check all that apply.

1. Tell friends about your relationship.
2. Become exclusive with your partner (i.e., not dating other people).
3. Meet your partner's friends.
4. Introduce your partner to your friends.
5. Post a photo of yourself with your partner on social media.
6. Meet your partner's parents.
7. Introduce your partner to your parents.
8. Say "I love you" to your partner.

9. Set your relationship status to "in a relationship" on Facebook.
10. Become sexually intimate with your partner.
11. Spend the night together with your partner.
12. Try a novel activity with your partner (i.e., something one or both of you has never done before).
13. Plan a future activity with your partner more than 1 month in advance (e.g., vacation, concert).
14. Take an overnight trip with your partner.
15. Move in with your partner.
16. Discuss the possibility of marriage with your partner.
17. Make a major purchase with your partner (e.g., pet, car, house cell phone plan).
18. Get engaged to your partner.
19. Marry your partner.

(For those who select “Complicated” for first time)

1. What has happened to complicate the relationship? _____
2. Do you still feel comfortable answering questions about your feelings toward X? Y/N

(Only for those who have checked the “sexually intimate” investment)

In the past week, how many times did you and your partner engage in sexual intercourse? _____

(Current Desire)

3. I would rather be with my partner than with anyone else.
4. I have an endless appetite for affection from my partner.
5. I care about my partner.
6. I would do almost anything for my partner.
7. I felt a great deal of sexual desire for my partner.
8. I feel satisfied with my sexual relationship with my partner.

(Future Potential)

1. I expect that our relationship has a good future
2. I expect that I will experience more problems in this relationship in the future
3. I believe that my partner and I make a good long-term match.
4. I can see my partner fitting in well with my future life plans.
5. I expect that our sexual relationship has a good future.

It was entirely
my partner's
decision

The decision
was completely
mutual

It was entirely
my decision

2. Do you consider this to be a breakup? Y/N
3. Approximately how many days ago did you stop dating? _____

4. How close are you currently with X?

1	2	3	4	5
Not close at all / no contact		Casually friendly		Very close / good friends

Please explain in as much detail as possible, what factors led to the breakup of this relationship.
In other words, *why* do you believe that you and X stopped dating one another?

Even if it would be challenging and would require time and effort, to what extent do you feel that these are problems that could be resolved if you and X really wanted to work things out?

1	2	3	4	5
Could never be resolved				Could definitely be resolved

Please respond to the following items using the scale provided.

1 2 3 4 5

Not at all true

Very true

7. It scares me to think that there might not be anyone out there for me. _____
8. I feel it is close to being too late for me to find the love of my life. _____
9. I feel anxious when I think about being single forever. _____
10. I need to find a partner before I'm too old to have and raise children. _____
11. If I end up alone in life, I will probably feel like there is something wrong with me. _____
12. As I get older, it will get harder and harder to find someone. _____

How do you currently feel about X?

1. If s/he could come back into my life, I would immediately leave any current romantic relationship I was in. _____
2. Sometimes I still get sort of an aching feeling in my heart when I think about him/her. _____
3. I am still in love with him/her. _____
4. Losing him/her was the worst thing that ever happened to me. _____

How much do you agree with each of the following statements regarding your *current* goals when it comes to X?

1	2	3	4	5
Strongly Disagree				Strongly Agree

1. I am motivated to get over X, no matter what it takes.
2. I am trying to let go of all romantic feelings for X.
3. Even though we're not together, I want to keep some romantic feelings for X alive. (R)
4. I am trying to maintain a close emotional connection with X. (R)

The goal of the Utah Pair Project is to try to understand more about people’s dating experiences. Even though you are no longer dating X, your continued involvement with the study would be incredibly helpful for our research. Would you be willing to continue receiving weekly surveys about your dating experiences and perspectives?

If so, you will be compensated for your participation just as before. If not, you will still be compensated for the surveys you have completed thus far.

Yes___

No___

WEEKLY SINGLE SURVEYS

(Subjective Wellbeing)

- 6. In most ways, my life is close to ideal
- 7. The conditions of my life are excellent.

(Stress)

1	2	3	4	5	6	7
Never						Very Often

- 7. In the last week, how often have you felt that things were going your way?
- 8. In the last week, how often have you felt difficulties were piling up so high that you could not overcome them?

(Relationship Events)

Are you interested in dating anyone at this time? Y/N

(If Yes)

Have you been on any dates this week? Y/N

(If Yes)

How many “first dates” have you been on this week? _____

How many “second dates” have you been on this week? _____

How many “third dates” have you been on this week? _____

Would you say that you are in a new dating relationship?

Yes

No

(If Yes, back to in-relationship questionnaire for new relationship)

Are you interested in having sex with anyone at this time? Y/N

(if Yes)

Did you have a sexual encounter this week? Y/N

(if Yes)

Who was the sexual encounter with?

- Stranger
- Casual acquaintance
- Friend
- Most recent ex-partner
- Past ex partner
- Other: _____

Had you engaged in sexual activities with this person before? Y/N

I feel satisfied with my sex life this week.

1= not at all. 7= very much

(Ex-Partner Measures)

Do you still feel comfortable answering questions about your feelings toward X? Y/N

(If Yes):

How close are you currently with X?

1	2	3	4	5
Not close at all / no contact		Casually friendly		Very close / good friends

How much do you *want* to get back together with X?

1	2	3	4	5
Not at all				Very much

Strongly
Disagree

Strongly
Agree

1. I am motivated to get over X, no matter what it takes.
2. I am trying to let go of all romantic feelings for X.
3. Even though we're not together, I want to keep some romantic feelings for X alive. (R)
4. I am trying to maintain a close emotional connection with X. (R)

(New Relationship Endeavors)

For a person to be your IDEAL romantic partner:

How *important* is it that they have each of the following traits? (1 = Not at all important, 7 = Very important)

- Warm
- Responsive to my needs
- Open & disclosing
- Kind & affectionate

How *important* is it that they do NOT have each of the following traits? (1 = Not at all important, 7 = Very important)

- Controlling & dominant
- Complaining
- Irrational
- Critical & judgmental

(Dating Expectations)

How *rare* do you think it is to find a romantic partner:

Who has each of the following traits? (1 = Not at all rare, 7 = Very rare)

- Warm
- Responsive to my needs

- Open & disclosing
- Kind & affectionate

Who does NOT have each of the following traits? (1 = Not at all rare, 7 = Very rare)

- Controlling & dominant
- Complaining
- Irrational
- Critical & judgmental

To what extent do you feel the following this week?

1	2	3	4	5
Not at all				Definitely

- a) I feel optimistic about my future relationships.
- c) I felt as though I will probably have a tough time finding a new romantic partner.
- d) I would rather focus my energy on other things in my life than a romantic relationship.
- e) I am motivated to be in a romantic relationship at this point in my life

(Only for those who said they are interested in dating)

How much do you intend to do each of the following at this time in your life?

(Finding someone:)

I intend to actively look for a new dating partner in the near future.

(Standards:)

I intend to only date someone who meets all of my standards for an ideal partner.

I intend to be open to considering dating anybody.

Table 1. Themes of investment model and non-relationship themes in Instagram posts.

Theme	Subtheme	Definition	Examples/Quotes
1. Investment			
	1a. Picture of partner	Any picture containing the participant's partner that doesn't contain the participant	Participant A posting a picture of only their partner making a silly face.
	1b. Picture with partner	Any picture containing both the participant and their partner	Participant B posting a picture of them and their partner on a motorized scooter together.
	1c. Partner tagged or mentioned	Any picture that "tags" the participant's partner or refers to significant other	Participant N posting picture of her sitting on ground on a snowboard: "This is me pretending I sat down just to take this shot. This *partner's name omitted* after he realized I didn't get his "sick" jump on film."
	1d. Picture with partner & friends/family	A picture that includes the participant, partner, and a friend/family member of the participant	Participant E posting a picture of himself, his partner, and two other friends covered in mud from an event they all competed in.
	1e. Affection	A picture of the participant and the partner showing affection (holding hands, hugging, kissing, etc.)	Participant K posting a picture with his arm around his partner.
	1f. Shared Activities	Participant partner engaging in some shared activity together	Participant L posting a picture of her and her partner during a hike together.
	1g. Relationship Milestones	Any picture of or mention in caption of an event signifying investment	Participant N posting a picture of her engagement with the caption: "I will never get over this day"
	1h. Future Plans	Any mention of making plans of the future in the relationship	Participant H posting the caption "can't wait to spend the rest of my Valentines (sic) days with you"
2. Satisfaction			

	2a. Rewards	Any allusion to the enjoyment or positive outcomes that come from the relationship	Participant M captioned a photo of him and his partner on vacation “Always a great time and place with this girl.”
	2b. Appreciation	Any posts that conveys a participant being thankful of their partner or something their partner had done	Participant I: “Thank you for being so loving and supportive of me.”
	2c. Positive partner attributions	Posts that contain content related to positive traits of their partner	Participant H: “(partner’s name omitted) is hilarious, fun, spontaneous, smart, and so caring :) I’m so glad I can say he’s mine!”
	2d. Costs/Sacrifice	Content in post that alludes to negative aspects of relationship or the participant giving something up for their relationship or for their partner	Participant J: “I hate having my picture taken. I hate being cold. but I sure do love you!!”
3. Perception of Alternatives		Any post that compares their partner to other people or their relationship to other people’s relationships	Participant M: “I know people say there’s plenty of fishies in the sea, but your (sic) my Nemo”
4. Selfies			
	4a. Just Self	Picture that only contains the participant	Participant C posting ‘selfie’ picture of just her face.
	4b. With Friends or family No partner	Picture that contains the participant and friends or members of their family, but not the partner	Participant N posting picture of her and her entire family
5. Documentation		Any post where a participant is documenting part of their life. This can include, but is not limited to: celebrating events, documenting accomplishments, or displaying artwork/food/etc.	Participant A posting pictures of her art.
6. Friends & Family		Picture of or mention of participant’s friend(s) or family member(s) that don’t contain the participant	Participant C posting a picture of her friend with nobody else in the picture.

7. Memes or Internet Content		Posts that contain content taken from somewhere else on the internet	Participant A posting an internet meme of Homer Simpson
8. Animal Posts		Post containing pictures of pets or other animals	Participant A posting a picture of her and her cat.

Table 2. Participant demographics and Instagram behavior.

ID	Gender	Age	Race/Ethnicity	Religion	Total Posts	Total Relational Posts	Days in Study Before 1 st Relationship Post	Most Common Post (No.)
A	F	30	White	Not	41	6	66	Documentation (11)
B	F	23	White	Not	9	2	7	Animal (6)
C1	O	18	Asian	Not	19	2	20	Pictures of Self (14)
C2	F	19	Asian	Buddhist	13	2	114	Pictures of Self (9)
D	F	27	White	LDS	3	1	60	Documentation (2)
E	M	24	Hispanic	Protestant	2	1	41	Investment (1)
F	F	22	Hispanic/ Pacific Islander/ White	Not	4	2	43	Investment (2) Satisfaction (2)
G	M	26	White	LDS	1	1	42	Investment (1)
H	F	23	White	LDS	3	3	30	Investment (3)
I	F	19	White	Not	2	2	16	Investment (2)
J	M	20	White	LDS	2	1	86	Investment & Satisfaction (1)
K	M	24	Hispanic	LDS	7	2	158	Pictures of Self (4)
L	F	18	White	Catholic	12	7	13	Pictures of Self (9)
M	M	21	White	Not	5	5	12	Investment (5)
N	F	20	White	LDS	15	11	13	Investment (11)
O	F	23	Black	Not	4	0	N/A	Documentation (2)

P	F	23	White	Spiritual	13	0	N/A	Pictures of Self (13)
Q	F	21	Black/Hispanic	Catholic	24	1	65	Pictures of Self (23)
R	F	20	White/ Native American	Not	10	1	130	Pictures of Self (9)

****Note:** For gender variable, M = male, F = female, & O = Prefer not to answer.

Table 3. Correlation table for Instagram posts and investment variables.

Variables	1	2	3	4	5	6	<i>M</i>	<i>SD</i>
1. Instagram Posts	–						9.95	9.90
2. Relational Posts	.39	–					2.63	2.77
3. (Relational Posts/Total Posts) * Relational Posts	.01	.89***	–				1.47	2.14
4. Time Investment	.06	.46*	.37	–			76.76%	17.76%
5. My Relationship Makes Me Very Happy	-.14	-.09	-.08	.19	–		6.29	1.16
6. I Have Put a Great Deal into Our Relationship that I would Lose if the Relationship were to End	.31	.25	.23	.04	-.17	–	6.47	1.07
7. I want our Relationship to Last Forever	.13	-.16	-.16	-.04	.64***	.05	6.53	.87

Note: * $p < .10$, ** $p < .05$, *** $p < .01$.