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Examining subjective understanding of participants and trained coders in adolescent romantic couples' interactions

Joseph Warren Dickson
University of Tennessee

To the Graduate Council:

I am submitting herewith a dissertation written by Joseph Warren Dickson entitled "Examining subjective understanding of participants and trained coders in adolescent romantic couples' interactions." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Deborah P. Welsh, Major Professor

We have read this dissertation and recommend its acceptance:

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Greer Litton Fox

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James Kevin McNulty

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EXAMINING SUBJECTIVE UNDERSTANDING OF PARTICIPANTS AND TRAINED CODERS IN ADOLESCENT ROMANTIC COUPLES' INTERACTIONS

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Joseph Warren Dickson

May 2009

DEDICATION

This dissertation is dedicated to my parents, Bill and Betty,

who have shown that they will never give up on me . . .

And to the rest of my family,

who have been nothing but supportive during this journey.

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I would like to individually extend my heartfelt thanks and gratitude to the following:

To my twin brother John, thanks for always being there. . . I cannot imagine going through life without you.

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ABSTRACT

The purpose of this study was to examine the similarities and differences of adolescent romantic couple members' and trained coders' subjective understanding and to assess simultaneously their unique contributions to predicting relationship satisfaction and whether couples were dating a year later. Data were collected from 211 couples over two years (median age = 17 years of age; median week dating = 31.5 weeks). Couples and trained coders used Video-recall procedures, which included recording couples' conversations and ascertaining couple members' and trained coders' understanding of the conversations. Individual couples were followed up approximately 1 year after Time 1 data collection. Multilevel modeling was utilized in order to maximize the reliability of the models by addressing the non-independence of partner members' data. Findings indicate that both couple members', as well as trained coders' perceive interactions differently. In addition, couple members' and trained coders' perceptions of the interactions and not couple members' attitude about the relationship predicted couple members' relationship satisfaction at Time 2. Couple members who felt more connection or closeness during their interaction, regardless of perceived conflict, were more likely to be together a year later. Although not hypothesized, there appears to be consistent findings suggesting that adolescent romantic relationships may serve more of an individual developmental role in facilitating identity development rather than being about the development of dyadic intimacy. Future research needs to investigate this possibility further.

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CHAPTER 1

INTRODUCTION

Interactions serve a vital empirical purpose in illuminating communication processes and developmental change within intimate relationships. There has been a rich history of directly observing interactions within significant interpersonal relationships. Originally, outside observers coded these interactions and researchers ignored participants' perceptions. A shift then occurred within marital research with the introduction of Gottman's (1979) theory hypothesizing that both family members and couples have "private communication systems" in which their perceptions of their interactions are influenced by their shared history and repeated interactions.

Additional researchers became interested in subjective understanding with the emergence of social constructionist theory. This theory posits that people perceive their world, including their own interactions and those of others, through different lenses, and thus, interpret those interactions in systematically different ways (Gergen, 1994a, 1994b; Hoffman, 1990; McNamee & Gergen, 1992). Reis and Shaver (1988) conceptualize these differences in perception as "interpretive filters", Collins and Sroufe (1999) refer to this phenomenon as cognitive bias, while others view these differences as error or the lack of empathic accuracy (Ickes, 1997).

The importance of examining adolescent dating couples' subjective understanding is central to several models within developmental theory. In response, researchers (Collins & Stroufe, 1999; Furman & Wehner, 1994, 1997) integrated attachment theory and intimacy theory into their empirical investigation of romantic relationship trajectories in trying to better

understand how two people involved in the same interaction may interpret and respond to that interaction very differently over time.

Scholars are including participants' subjective understanding in their observational research more often. However, the majority of these studies include either participants' ratings or outside observers' ratings. Very seldom are both measures of observation utilized in predicting outcomes. Most of the time when both measures of observation are utilized it is done to compare participants' and outside observers' perceptions. The results of these comparisons leave little doubt that participants see things differently from outside observers. The finding that families and couple members perceive their interactions in idiosyncratic ways inaccessible to outside observers (Margolin, Hattem, John, & Yost, 1985; Noller & Callan, 1988; Welsh, Galliher & Powers, 1998; Welsh, Galliher, Kawaguchi, & Rostosky, 1999) underscores the need for researchers to examine subjective understanding. In addition to investigating subjective understanding, there is little known about how participants' and outside observers' subjective understanding on similar variables of interest uniquely predict outcomes.

This study expands upon the current literature by using longitudinal data in examining the unique variance of adolescent couple members' and trained coders' subjective understanding of interactions in predicting individual and relational function. Additionally, both couple members and trained coders utilize the Video-recall micro-analytic assessment methodology. The purpose of this study was to examine the similarities and differences between adolescent dating couple members' and trained coders' ratings of an interaction, simultaneously assessing the unique contributions in the prediction of relationship satisfaction and whether couples are together a year later.

Outside Observers' Subjective Understanding of Interactions

Throughout the past eighty years, researchers from numerous fields have recognized the importance of directly observing the interactions of their participants (Noller & Feeney, 2002). Observational data offers a unique means to study how behavior fluctuates as a function of the ongoing context and how behavioral sequences unfold across time (Raush, Barry, Hertel, & Swain 1974). Observational research has increased due to several reasons. These reasons include questions regarding the validity of self-report measures (Bank, Dishion, Skinner, & Patterson, 1990), attempts to assess ongoing behavior relationship processes (Floyd, 1989), the desire for relatively unbiased outside assessments of relationships, and the development of recording devices and observational methodology that are capable of encoding and analysing the data generated by observational research (Markman & Notarius, 1987).

For more than fifty years, researchers have documented the relational outcomes of specific marital communication patterns (Fincham, 1998; Gottman, 1994; Karney & Bradbury, 1995; Weiss & Heyman, 1997). The early work in this field stemmed from pure behavior theory and focused exclusively on documenting numerous behavioral differences between the interaction patterns of distressed and nondistressed relationships. Behavioral models, focused on the interpersonal exchange of specific behaviors, assumed that rewarding (or positive) behaviors enhanced global evaluations of the marriage while punishing (or negative) behaviors did harm (Karney & Bradbury, 1995). Current theoretical behavioral explanations usually include cognitive and affective factors as important components of observable interactions (Baucom, 1987; Bradbury & Fincham, 1990; Margolin, 1987). Gottman (1979), one of the first researchers in marital work to include affect, developed the Couple Interactional Scoring System for outside raters to evaluate positive, negative, or neutral affect based on vocal tone, facial cues, and body

posture. Rather than reporting a behavior which had an assigned meaning, coding systems were developed that required outside observers to interpret and give meaning to participants' behaviors. Outside observers would then have to infer the motives for the behaviors observed and construct impressions of participants' personality characteristics (Gergen, Hepburn, & Fisher, 1986). With the introduction of social constructionist theory (Hoffman, 1990), researchers became more interested in studying participants' subjective understanding, rather than relying solely on the interpretations of outside observers.

Subjective Understanding

Merriam-Webster Dictionary defines subjective as, "pertaining to, or affected by personal views, experience, or background". Subjective understanding of an interaction includes an individual's affective and cognitive understanding in making sense of behaviors and experiences (Powers, Welsh, & Wright, 1994). Multidimensional, subjective understanding not only includes affective and cognitive states associated with an event, but also perception of intent, and an understanding of the significance of the event. This is in contrast to objective understanding. Objective means, quoting from Merriam-Webster Dictionary, "expressing or dealing with facts or conditions as perceived without distortion or personal feelings, prejudices, or interpretations". Objective understanding is usually associated with traditional outside observers' behavioral coding systems. These coding systems require trained coders to recognize behaviors that already have assigned meanings within the coding manual. Subjective understanding is different from attributions, which are cognitive processes that refer to how individuals explain behavior of others or themselves.

The trained coders' perceptions are also referred to as subjective understanding. We acknowledge there may be some differences between subjective understanding as reported by couple members and the understanding of trained observers who were not involved in the interaction. However, due to the interpretations required by trained coders in measuring the constructs of interest in the coding system, we conceptualize these as subjective understanding. Trained coders did prove to be reliable in applying this coding system (described later in the methods section).

Participants' subjective understanding of interactions. Interpersonal events consist of an ongoing exchange of observable behaviors as well as implicit and explicit reactions based on mental states that are in constant flux and can include desires, needs, feelings, reasons, and beliefs. As explained earlier, trained coders can learn to code specific behaviors observed in participant interactions. However, accurately assessing participants' cognitive interpretations of behaviors as well as affective experiences is impossible for trained coders. Adding participants' subjective understanding allows researchers to gain access to subjective reactions, which can both aid in understanding more of the affect level, as well as the meaning and value placed on overt behaviors.

Gottman's (1979) Private Communication System theory posited that both family members and couples have a "private communication systems" in which their perceptions of interactions are influenced by their shared history and repeated interactions. This theory as well as cognitive theories of marital distress helped to initiate the investigation of spouses' subjective understanding of interactions. Subsequently, as time passed, theories that emphasized the dynamic interplay of spouses' interpretations of meaning, intentions and feelings associated with their partner's interactions based on their own idiosyncratic sets, schemata and personality

characteristics became more popular (Margolin, 1987; Jacobson, 1984). Early on, participant observations consisted of monitoring techniques that required participants to record their behavior after a designated interval of time using a simple frequency count. Initially used with parent-child interactions in home settings (Rappoport & Harrell, 1972), marital research later incorporated the technique. An example of this monitoring technique is the Spouse Observation Checklist (SOC; Weiss & Perry, 1979), a checklist that couples complete to assess their behaviors. As theories and methodology transformed, reporting simple frequency of behaviors progressed to reporting patterns of behavior. Participants were asked to track their behaviors in response to their partner's target behavior as well as their partner's reaction response to their behavior.

Marital literature also contributes to understanding the interplay of subjective understanding. One of the major findings from the marital literature is the lack of agreement between husbands' perceptions and wives' perceptions of their interactions and relationship qualities. Jacobson and Moore (1981) used the Spouse Observation Checklist to investigate the reliability of spouses as observers of the behaviors that occur in their own marital relationships. The authors found greater consensus among non-distressed marital couples than distressed marital couples. Further comparisons on selected categories of behavior revealed the inferential items less reliably coded compared to the noninferential items. The authors viewed this as error and offered other possible methods of data collection that would result in more reliable coding.

Clearly, events are not "seen" in the same way by spouses (Fincham, Bradbury, & Scott, 1990; Gottman, 1994; Weiss & Heyman, 1997). These divergent perceptions can impact relationships by influencing how couple members respond to each other during interactions as well as their global evaluations of their relationships. Relatively little is know about the

interactional processes of adolescent dating couples. Researchers investigating interactions of families (Dix, 1991) and marital relationships (Pasch & Bradbury, 1998; Gottman, Coan, Carrère, & Swanson, 1998) consistently find that higher rates of perceived positive behavior and lower rates of perceived negative behaviors are associated with better relationships and individual well-being. While there are developmental theories on the communication of adolescent dating couples, to our knowledge, there are not any studies looking at the subjective understanding of couple members' interactional processes predicting individual and relational functioning.

Comparing outside observers' and participants' subjective understanding.

Historically, researchers have examined the different perceptions of participants and outside observers and assessed the extent to which they share the same view. There is tremendous variability in how two or more individuals perceive and label events. Some researchers understand this variability as perceptual distortions or error and in examining agreement of perceptions find that it usually falls below the level deemed acceptable. Other researchers, however, conclude that different informants perceive events in meaningful systematically different ways (Welsh & Dickson, 2005; Campione-Barr & Smetana, 2004; Welsh, Galliher, Kawaguchi, & Rostosky, 1999; Surra & Ridley, 1991; Noller & Callan, 1988; Margolin, Hattem, John, & Yost, 1985; Gottman, 1979).

Furman and Wehner's (1994) theoretical model highlights the importance of "views," that each couple member brings into the relationship. Shaped by perceptions, preconceptions and expectations held by individuals about particular types of relationships, these "views" of romantic relationships influence individuals' behavior in their relationship as well as the way they interpret events that occur. For example, Gottman and Porterfield (1981) found wives in

unhappy marriages have trouble communicating nonverbally to their husbands but not to a married stranger. Additionally, couple members were more likely to agree with outside observers' ratings of standardized interactions of two actors portraying a married couple compared to agreement on their own interaction (Weiss, 1989; Margolin, Hattem, John, & Yost 1985). This is consistent with Gottman's proposed private communication system in which couples who have spent time together have a more shared view of their interactions compared to outside observers.

There has been a good amount of research examining the statistical differences between trained coders' and couple members' ratings. Researchers have also used either one of these informants in testing outcomes. However, to our knowledge, there has not been a study investigating the unique variance of trained coders' and couple members' perceptions on the same variables of interest in predicting individual functioning and relationship longevity.

Adolescence Romantic Relationships

Developmentally, adolescence is when romantic partners become a major source of support, second to mothers (Furman & Buhrmester, 1992). Romantic relationships are new forms of relationships that are voluntary and easily terminated by either person (Larson, 1983). As couple members negotiate these new relationships, they may unconsciously filter out negative feelings which would threaten the relationship. Furman and Shoemaker (2008) found that romantic partners tended to amplify each other's positive behaviors and continue a fluid exchange. At the same time, the task was forgotten or appeared less important than avoiding negative topics during the interaction. This positive feedback system (Larson, 1983) has also

been observed in adolescent-peer interactions. Alternatively, positive views may be the result of early positive expectations due to being in a new relationship (MacDonald & Ross, 1999).

Some researchers believe the primary functions of romantic relationships during adolescence are to serve as opportunities for recreation, sexual experimentation, or status attainment (Brown, 1999; Furman & Wehner, 1997). This is different from the role of adult dating relationships, which have shown attachment and caregiving systems to be more important (Shulman & Scharf, 2000).

Research supports that adolescent romantic relationships are unique and have different patterns of interaction compared to mother-adolescent and peer-adolescent relationships. Galliher, Rostosky, Welsh, and Kawaguchi (1999) found adolescent romantic relationships to be more egalitarian while parent-adolescent relationships tend to be more asymmetrical, with parents having more power and authority. Furman and Shoemaker (2008) found adolescent romantic couples perceived more support and fewer negative interactions in romantic relationships than in relationships with mothers. Given the importance of intimate relationships for adolescents' psychological and physical well-being, the manner in which these relationships affect adolescents in future relationships is important to understand.

A successful adolescent romantic relationship, characterized by good communication, can provide a marker for good adjustment and have a positive impact on developmental relationship trajectories. Researchers are more commonly examining adolescent couple members' communication patterns. However, most observational data on couples' interactions are coded by observers. It would be helpful to see if couples can recognize unhealthy communication patterns with romantic partners. Early interventions, such as teaching conflict

resolution strategies, could be implemented as a means of preventing the continuation of a negative pattern in future relationships and marriages, which result in divorce.

Communication, Relationship Satisfaction, and Dissolution

Interdependence theory (Thaibaut & Kelley, 1959) posits that partners in relationships influence affective rewards and costs each couple member obtains from interactions. Theoretically, person's who have the most to offer will most likely obtain the outcomes he or she desires while their partner may tolerate poor outcomes resulting in relationship dissatisfaction but not dissolution. In this way, outcome interdependence and its associated problems can affect long-term relationship satisfaction and dissolution differently. Recently, marital research findings indicate different antecedents predict relationship satisfaction and marital dissolution (Rogge & Bradbury, 1999; Rogge, Bradbury, Hahlweg, Engl, & Thurmaier, 2006).

Although increasing, there are a limited number of longitudinal studies examining adolescent romantic relationships. This is surprising given the reported emotional distress related to concern over choosing the right partner and the reported suffering after the loss of a breakup (Larson, Clore, & Wood, 1999). In fact, adolescent romantic breakups are one of the strongest predictors of depression (Joyner & Udry, 2000). One study, Shulman, Tuval-Mashiach, Levran, and Anbar (2006), found that couples who acknowledged their disagreements and exhibited a good ability to negotiate honestly their disagreement within an atmosphere of positive affect were involved in relationships of a longer duration. Couples who ignored conflict and utilized the positive feedback system were likely to break up within a year.

Studies of marital couples' communication find an association with relationship satisfaction (Halford, Lizzio, Wilson, & Occhipinti, 2007). Longitudinal studies on recently

married couples' interactions and the findings indicate that negative affect (Huston & Vangelisti, 1991; Rogge & Bradbury, 1999) and positive affect (Gottman, Coan, Carrère, & Swanson, 1998; Rogge & Bradbury, 1999) predict relationship satisfaction. Murray, Holmes, Bellavia, Griffin and Dolderman (2002) found dating and married couples both assumed more similarity between themselves and their partners. In marriages, this predicted greater satisfaction as those who assumed greater similarities were more likely to believe their partner understood them. The couples' similar perceptions served a relationship-enhancing function that played out through couples' supportive interactions. This was in contrast with Swann, Da La Ronde, and Hixon (1994) who found evidence of a "marriage shift" such that dating partners were happier when partners' viewed them positively, but married couples were happier when spouses viewed them accurately.

Developm entally, couple members may be better off recognizing unhealthy relationships and subsequently break up with their partner. It seems warranted to discover this pattern and provide an intervention, such as conflict resolution skill training, during adolescence as a means of preventing the continuation of a negative pattern in subsequent relationships and marriage.

Purpose

Many contemporary theories emphasize the importance of understanding the meaning that individuals give when assessing their communications with others. Jerome Kagan wrote, "the child's personal interpretation of experience, not the event recorded by camera or observer, is the essential basis for the formation of and change in [the child's] beliefs, wishes, and actions" (Kagan, 1984, p. 241). The fundamental importance of individuals' subjective understanding

acknowledged by Kagan's statement has profoundly influenced many diverse theoretical perspectives.

Studies investigating the subjective understanding of couple members interactions consistently find differences in the perceptions of those involved. Thus, two people may be involved in the same interaction but have different interpretations of what took place and then respond to that interaction very differently. Although interactional processes in both adolescent friendships and mother-daughter relationships have been found to predict relationship qualities (Brendgen, Markiewicz, Doyle, and Bukowski 2001), there is limited research investigating adolescent romantic couples' interactional processes predicting relationship qualities.

Popular developmental theories on adolescent romantic couples lend to the more extensive researched areas of dating and married adult couples. Despite differences in couple members' views, when compared to outside observers, couple members have been found to be more similar in their understanding of the interaction. The relative similar views of couple members compared to trained coders may be due to their time spent together and shared experiences. In comparing outside observers' and couples' perceptions, Weiss (1989) found that outside observers rated interactions more negatively whereas couple members viewed the interaction more favorably. Consistent with positive feedback systems, adolescent dating couples will minimize and avoid negative communication processes and amplify the positive processes compared to trained observers.

Couple members' and outside observers' perceptions of the interaction may be markedly different in terms of not only agreement, but also in their unique contribution to the prediction of relational and individual variables. Couple members' views of romantic relationships influence their patterns of interaction in these relationships as well as the way they interpret the

interactions that occur within those relationships. Utilizing both participants' perceptions and the more traditional trained coders' perceptions of interactions in gaining a better understanding of communication is a research question of interest. The purpose of this study is to simultaneously assess the unique associations of adolescent dating couple members' and trained coders' subjective understanding of an interaction predicting relationship satisfaction and whether a couple is together a year later. We pose three hypotheses.

1) *Romantic couples' perceptions of their interaction will be more strongly associated with each other than with trained coders' perceptions of the interaction. We also expect couple members will perceive higher levels of positive dimensions and lower levels of negative dimensions of their interaction compared to trained coders' perceptions of the interaction.*

2) *Romantic couple members' relationship satisfaction a year later will be predicted by couple members' and trained coders' perceptions of the interaction independently while controlling for couples' original report of relationship satisfaction and the length of their relationship. Specifically, lower levels of negative perceptions and higher levels of positive perceptions will predict higher relationship satisfaction of couples still together a year later.*

3) *Couples members' and trained coders' perceptions of the interaction independently will predict couples' dissolution a year later, controlling for length of the couples' relationship. Specifically, lower levels of negative perceptions and higher levels of positive perceptions will predict if couples are still together a year later.*

CHAPTER 2

METHODS

Participants

Participants were drawn from the Study of Tennessee Adolescent Romantic Relationships (STARR: Welsh, 1999), an NICHD funded project (Grant No. RO1 HD39931). This longitudinal multi-method, multi-reporter data were collected from a previous study examining the dating behaviors of 2200 students who attended 17 East Tennessee High Schools. These schools were chosen to represent rural, suburban, and urban communities and to reflect the socioeconomic diversity of the area. Individuals from the high school study who indicated interest in participating in future research (86% of the participants from the high school sample) were contacted by telephone and provided information regarding the purpose and procedures of the couple study. Adolescents who met the age criteria (target adolescent aged 15 or 16 and dating partner between 14-17 or target adolescent aged 18 or 19 and dating partner between 17-21) and who reported dating their current partner for at least four weeks were mailed consent forms describing the procedure and contacted one week later regarding their willingness to participate. Of the target adolescents, 52% (n= 109) were female and 48% (n=102) were male. Reasons for non-participation in the current study included the following: 27% (n = 603) were not currently dating, 26% (n =595) were either too busy or not interested in participating in the study, 17% (n = 375) were not able to be reached, 7% (n = 169) were dating but did not meet the length of relationship criteria, 6% (n =142) were dating but did not meet the age criteria, and 3% (n =73) had parents who refused to let them participate.

The final sample included 211 mixed sex adolescent romantic couples from the Southeastern United States, between the age of 14 and 20 years old. Seven couples were excluded from this study because of missing data. The median age of the participants in the study at the time of data collection was 17 years of age. The median length of time couples had been dating was 31.5 weeks (approximately 8 months) with a range of 4 weeks to 260 weeks (approximately 5 years). The majority of the sample identified themselves as Caucasian (90.2 %), with the remainder of the sample identifying as African-American (6.5%), Asian (1.0%), Hispanic (0.8%), Native American (0.5%), and "Other" (0.8%). Approximately half of the sample identified their neighborhoods as suburban (47.5%), followed by rural (31.1%) and urban (21.5%). Parental education level (the highest level of education completed by either parent) was used as a proxy measure for socioeconomic status. Slightly more than half (55%) of the participants reported that neither parent had a college degree, while almost half (45%) of the sample reported having a parent with a college degree or higher. Specifically, the highest education level completed by either parent was: some high school (4.3%), high school graduate (24.6%), technical school or some college (26.1%), college (29.9%), or graduate school (14.9%).

Procedure

Time 1. Couples participated in one data collection session that was scheduled at the couple's convenience and ranged from 2.5 to 4.5 hours. Couples completed a series of questionnaires, 3 digitally recorded conversations, and the video-recall procedure (described below). The laboratory is comprised of three separate rooms within a suite so that couple members had sufficient privacy from our staff while completing the video-recording task and from each other during the video-recall and questionnaire portions of the study. Couple members

were offered snacks and beverages during the session to facilitate attentiveness and cooperation. Couple members were paid $30 each ($60 per couple) for their participation.

Time 2. Individual couple members were contacted approximately 1 year after Time 1 data collection (median 14 months; SD = 4.7 months), to complete a follow-up survey. Participants were sent an informed consent for themselves and a parent if under 18, a packet of questionnaires, and a self-addressed stamped envelope, or they were given the option to complete follow-up questionnaires via a secure internet server. Individuals were paid $15 for completing the follow-up survey, and a total of 371 couple members (88%) participated. Overall, 40.3% of the 176 couples who participated at Time 2 were still dating one another.

Measures

Adolescent's gender, age, and length of relationship. A demographic questionnaire was used to obtain information about couple member's gender, age in years, and length of relationship. A copy of these items is included in Appendix B-1.

Couple members' communication process. Couples' communication process was assessed using video-recall procedures, which included recording couples' conversations and ascertaining couple members' subjective understanding of their conversations. Adolescent couples participated in three recorded conversations (Capaldi & Crosby, 1997), designed to elicit engaging conversations. First, the couple members were asked to plan a party for 5 minutes as a warm-up task to allow the couple to become more comfortable with the situation. In the second and third conversations (8 min 40 sec for each of the two conversations), couples discussed issues of disagreement previously selected independently by each partner from the Adolescent Couples' Issues Checklist (Welsh, Grello, Dickson, & Harper, 2001). This checklist includes 21

common issues of disagreement between adolescent couple members, as well as an option to write issues not on the list. A copy of the measure is included in Appendix B-2. Example items include, “my partner and I disagree over how committed we are to each other” and “my partner has a hard time dealing with my ex-boyfriend/girlfriend”. The measure was modified for our project from the Partners Issues Checklist (Capaldi & Wilson, 1992) to improve clarity and to include regionally relevant issues. The second and third conversations were counterbalanced for whether the couple discussed the male or female issue first.

Following the recorded conversations each couple member separately viewed the latter two conversations and rated their feelings and behaviors for the middle 6 min 40 sec of the two conversations. This allowed a one-minute period for warming up to the conversation in the beginning and provided a one-minute buffer for variability in couples’ conversation length at the end of the conversation. Each participant first rated themselves for the two conversations and then viewed the conversations a second time to rate their partners’ behaviors and feelings. After each 20 second segment of conversation, the video was paused by the computer and the participants rated themselves on seven dimensions. In pilot testing, participants found it difficult to shift perspectives and rate themselves and their partners in the same viewing. Also, after experimenting with segment lengths of 15 seconds (Powers & Welsh, 1999; Powers, Welsh, & Wright, 1994; Welsh, Galliher, & Powers, 1998), 25 seconds (Galliher, Welsh, Rostosky, & Kawaguchi, 2004; Welsh, Galliher, Kawaguchi, & Rostosky, 1999), and, in the current project, 20 seconds, we concur with Halford and Sanders’ (1990) assessment that 20 seconds is optimal for segment length.

The seven dimensions rated were selected to represent significant affective/cognitive constructs theoretically linked with the developmental and marital literatures to understand

adolescent romantic couples' communications. Specifically, the codes used represented the broader conceptual domains of separating and connecting behaviors and feelings, which have been used fruitfully to understand the family interaction of adolescents and to predict adaptive adolescent development (Allen, Hauser, Bell & O'Connor, 1994; Powers & Welsh, 1999; Welsh, Galliher, & Powers, 1998). The seven dimensions coded in each 20 second segment included the degree to which the individual being rated was feeling *connected*, *frustrated*, and *uncomfortable*, and the degree to which the individual was being *conflictual*, *sarcastic*, *conceding*, or was *trying to persuade* his or her partner. A copy of the dimensions can be found in Appendix B-3. The dimensions appeared as a statement on the computer monitor (e.g., "I was being CONFLICTUAL (or challenging) with my partner) and participants responded to each statement using a 5-point rating scale (e.g., "not at all" to "strongly conflictual"). After participants responded to a statement, the next statement appeared on the monitor. As soon as participants responded to the last dimension for each segment, the next segment automatically played, and participants then rated that segment on each dimension. Participants rated their own feelings and behaviors in their first viewing of their conversations and then reviewed the conversations a second time and rated their partner's feelings and behaviors. The time lapse between participants rating themselves and their partner on the same segment was at least 30 minutes. Couple members' ratings of themselves were separately aggregated, and a mean score was calculated for each feeling and/or behavior.

Trained coders' communication process. The Video-recall procedure that the couples used was utilized by the coders as well. Reliability was obtained by a male (aged 27) and two female (aged 22 and 25) clinical psychology graduate students. The three coders spent a year (at 3 hours per week) of training. Over the first few weeks, coders became familiar with the

Observer Coding Manual for the Video-recall Procedure. Coders' spent the majority of the year discussing practice couples' conversations segment by segment with individual coders explaining their interpretations and rationale for each rating. Ultimately, trained coders' expanded their personal views and experiences to include the other coders as well. Therefore, on the continuum of being more objective or subjective we consider the trained coders more subjective than objective. After training, coders would meet weekly to present questions or issues that came up while coding couples' interactions. A total of seven couples were triple-coded to assess inter-rater reliability throughout the coding of couples' conversations. On average, reliability was checked after coders each coded 10 couples. Results demonstrated that a high inter-rater reliability was generally maintained. For males, intra-class correlation coefficients for the aggregated mean ratings were .71 for connection, .73 for discomfort, .83 for frustration, .85 for conflict, .77 for persuasion, .72 for conceding, and .70 for sarcasm. For females, intra-class correlation coefficients for the aggregated mean ratings were .80 for connection, .78 for uncomfortable, .85 for frustration, .87 for conflict, .86 for persuasion, .70 for conceding, and .42 for sarcasm. Despite attempts during training to correct for the low intra-class correlation of sarcasm, the traditional psychometric magnitude of .70 or above was not achieved. Therefore, this variable was left out of all analyses. Additionally, seven couples were dropped from analyses because of missing data.

Coders separately viewed the latter two conversations and rated the middle 6 min 40 sec of the two conversations. Each coder rated the male and female behavior for a total of 40, twenty-second segments. After each 20 second segment of conversation, the video was paused by the computer and the coder rated the designated participant on seven dimensions. The same seven dimensions were examined in this project. Each dimension appeared as a statement on the

computer monitor (e.g., "The male was being CONFLICTUAL (or challenging) with his partner) and coders responded to each statement using a 5-point rating scale (e.g., "not at all" to "strongly conflictual"). A copy of the dimensions can be found in Appendix B-4. After coders responded to a statement, the next statement appeared on the monitor. As soon as coders responded to the last dimension for each segment, the next segment automatically played, and coders then rated that segment on each dimension. Coders rated one couple member's feelings and behaviors in the first viewing of their conversations and then reviewed the conversations a second time and rated the other partner's feelings and behaviors. The order of couple member being rated was counterbalanced whether the boyfriend or girlfriend was rated first. Coders' ratings were aggregated separately and a mean score was calculated for each feeling and/or behavior.

Scoring of the communication processes of couples' interaction by the trained coders' were based on quality of verbalizations, voice tone, gestures, behaviors and facial expressions. *Connection* was measured by the extent couple members shared information, encouraged, acknowledged, supported, and engaged their partner. Behaviors observed included brief eye contact to big gestures of physical affection (e.g., moving close and holding hands). *Discomfort* was measured by the extent couple members disengaged or withdrew from the conversation. Behaviors observed included leaning away within the context of communication, nervous laughter, to changing the subject (e.g., "I don't want to talk about this"). *Frustration* was coded in relation to the partner or topic of conversation, not with the task or the situation. *Frustration* was measured by the extent couple members felt misunderstand, become annoyed, to interrupting with high intensity of voice tone. *Conflict* was assessed by the extent to which couple members communicated disagreement or challenged their partner. Behavioral examples include shaking ones head and finger pointing, to name calling and yelling. *Persuasion* was

measured by the extent to which partners tried to influence, convince, and plead their point of view. *Conceding* was measured by the extent to which couple members surrender or give in. A copy of the Observer Coding Manual for Video-Recall Procedure is included in Appendix B-5.

Relationship satisfaction. Levesque's (1993) 5-item Relationship Satisfaction Scale was used to assess relationship satisfaction in the context of adolescents' romantic relationships. It was developed by modifying Spanier's (1976) widely used Dyadic Adjustment Scale and is similar to Hendrick & Hendrick's (1988) measure of relationship satisfaction. Example items include, "compared to other people's relationships, ours is pretty good" and "our relationship has met my best expectations". Participants responded to the five items using a six-point scale (1=strongly disagree, 6=strongly agree). The sum of the five items from this scale was calculated to yield a total relationship satisfaction score, allowing scores to range from values of 5 to 30 with the higher score reflecting better relationship satisfaction. The internal reliabilities were acceptable for this sample at Time 1 (boyfriends: $\alpha = 0.85$; girlfriends: $\alpha = 0.84$) and Time 2 (boyfriends: $\alpha = 0.92$; girlfriends: $\alpha = 0.89$). A copy of these items for the relationship satisfaction dimension is included in Appendix B-6.

Dating status. Dating status was assessed at Time 2 by asking each participant if they were still dating their original STARR partner (the original partner's name was supplied for them to reduce confusion). In cases where partners disagreed about relationship status, couples were classified as not dating. Ratings were then coded dichotomously as Still Dating (1) v. Broken Up (0).

CHAPTER 3

RESULTS

Descriptive Statistics and Preliminary Analyses

Descriptive statistics for all independent variables are reported in Table A-1. Correlations of the video recall dimensions and raters are presented in Table A-2. Correlations between couple members' ratings of their own feelings and behaviors and their ratings of their partners' feelings and behaviors were exceptionally high, ranging from .73 to .91 as reported by Welsh & Dickson (2005). It is doubtful that this finding is due to a methodological reason due to at least a 30-minute interval between participants rating themselves and rating their partners behaviors and feelings. This finding indicates that the adolescent couple members perceived their partners' interactions in almost the same way they viewed their own interactions. While conceptually these are different constructs, statistically the shared variance between the two are so high only the couple members' ratings of their own feelings and behaviors are included in analyses. Correlations of the trained coders' ratings of the couple members were also high and significant in most cases, ranging from .56 to .86. The exception was trained outside observers' perception of boyfriends' conceding, which was not correlated with outside observers' perception of girlfriends conceding during the interaction.

Correlations among the independent variables are reported in Table A-3. As expected, couples' relationship satisfaction at Time 1 was significantly correlated with all couples' and trained coders' ratings of the interaction (ranging from -.17 to .36), with the exception of trained coders' perception of couple members' conceding and feelings of discomfort. Specifically,

couples who perceived less conflict, persuasion, and conceding and who experienced more positive feelings of connection and less feelings of discomfort and frustration during their interactions were associated with higher levels of relationship satisfaction at Time 1. Correlations of couple members' communication process variables with trained coders' communication process variables were moderate and significant (ranging from .15 to .42). These moderate and significant correlations examining the similarity of coders' perceptions strongly suggest that while there are important similarities between couple members' ratings and trained coders' ratings, there are also some differences.

Couples' and Coders' Perceptions of the Interaction

To address the first part of hypothesis 1, rater association, we compared the magnitude of the correlations examining the similarity of coders' perceptions: (1) boyfriends' perceptions of the interaction correlated with girlfriends' perceptions of the interaction; boyfriends' perceptions of the interaction correlated with trained coders' perceptions of boyfriends during the interaction (2) girlfriends' perceptions of the interaction correlated with boyfriends' perception of the interaction; girlfriends' perceptions of the interaction correlated with trained coders' perceptions of girlfriends during the interaction. Because correlation coefficients measured on the same individuals are not independent, the assumptions of many commonly used statistics are violated. Steiger (1980) recommended the modification of Hotelling's t test proposed by Williams (1959) be used for comparing differences between two non-independent correlation coefficients.

The correlations examining the associations between coders' perceptions of the interaction are presented in Table A-4. These correlations examining the similarity of coders' perceptions were significant, moderate, and ranged from .16 to .48 with two exceptions:

girlfriends' ratings of conceding were not correlated with boyfriends' ratings of conceding and boyfriends' perceptions of conceding were not significantly correlated with trained coders' perceptions of boyfriends conceding. William's *t* test was then used to test for significant differences between the coders' perceptions of the interaction. Results revealed no significant differences between the coders' perceptions. Specifically, the correlations between boyfriends', girlfriends', and trained coders' perceptions of the interaction were not significantly different.

To address the second part of hypothesis 1, rater bias, a series of t-tests were conducted comparing the levels of connection, discomfort, frustration, conflict, persuasion, and conceding perceived by couple members and trained coders. Rater bias refers to the tendency of a rater to make ratings generally higher or lower than other raters. Results are reported in Table A-5.

Paired-samples t-tests showed significant differences on all pairs of process communication variables between the boyfriends' and the trained coders' subjective understanding of boyfriends during the interaction ($ps<.05$), with the exceptions of frustration and conflict. Boyfriends perceived more connection ($t(203) = 23.69$, $p<.01$), less discomfort ($t(203) = -2.74$, $p<.01$), less persuasion ($t(203) = -4.17$, $p<.01$), and more conceding ($t(203) = 3.12$, $p<.01$), during the interaction than the trained coders. Significant differences were found on all pairs of process communication variables between the girlfriends' subjective understanding and the trained coders' subjective understanding of the girlfriend during the interaction ($ps < .05$), with the exception of conceding. Girlfriends perceived more connection ($t(203) = 26.69$, $p<.01$), less discomfort ($t(203) = -4.56$, $p<.01$), less frustration ($t(203) = -6.11$, $p<.01$), less conflict ($t(203) = -2.34$, $p<.05$), and less persuasion ($t(203) = -6.45$, $p<.01$) during the interaction than the trained coders.

Predicting Relationship Satisfaction of Couples from Communication Process

In hypothesis 2, we were interested in predicting future relationship satisfaction of couple members. Therefore, the following analyses include only the couples who were still together at the time of the follow-up. Of the 211 original couples, 105 (49.8%) reported that they were no longer together at Time 2. Another 19 couple members reported still dating, however, their partners did not return a survey. Therefore these 19 couples, or (9%) of the original 211 were not included in the analyses. 9 (4.3%) couples did not complete the follow-up and another 7 (3.3%) couples were not included because they had missing data at Time 1. As a result, longitudinal analyses were based on 71 of the original 211 couples, or (33.6%) of the sample. No significant differences were found on relevant variables between couples who participated at Time 2 and couples who did not participate at Time 2.

Analysis of hypothesis two is complicated because the responses of dating partners are non-independent of one another (e.g., boyfriends and girlfriends interacted during the conversation segment). In this case, the communication process dimensions reported by each couple member are dependent upon both the couple the individual is part of, as well as the couple member's own characteristics. This lack of independence violates the assumptions of techniques such as multiple regression, and thus artificially inflates error terms. Hierarchical Linear Modeling (HLM; Bryk & Raudenbush, 1992) was used to examine hypothesis 2 as it is specifically designed to adjust the degrees of freedom in the model to compensate for non-independence of observations. HLM analyses also provide two types of information: (1) how much of the variation in adolescent dating couples' report of relationship satisfaction at Time 2 can be explained by differences between couples and how much can be explained by differences between individuals within couples (the baseline model); (2) the extent to which adolescent

couples' relationship satisfaction at Time 2 can be predicted by factors at the two levels of analysis: the individual level (level 1) and the couple level (level 2).

First, a baseline model was estimated to calculate the proportion of variance in couples members' relationship satisfaction at Time 2 attributed to differences between couples and differences between individuals within couples. This model includes only the dependent variable. Base model estimates revealed that 8.4% of the variance in couple members' relationship satisfaction at Time 2 was attributable to differences between couples and 91.6% of the variance was attributable to individual differences within the couple plus error.

The second model examined couple members' perceptions along with the trained coders' perceptions of couple members in predicting relationship satisfaction at Time 2. Couple members' relationship satisfaction at Time 1, couples' relationship length, and gender of couple members were used as control variables. All factors were centered around the grand mean. The effects of age were tested as both a main effect and interaction variables with the individual characteristics in all models. In no case were the interactions of age significant, so these terms were eliminated from the final model. The following model was assessed:

$$Y_{ij} = \beta_{0j} * (\text{Length of couples' relationship}) + \beta_{1j}(\text{Gender}) + \beta_{2j}(\text{Relationship Satisfaction Time 1}) + \beta_{3j}(\text{Participants' rating of connection}) + \beta_{4j}(\text{Participants' rating of discomfort}) + \beta_{5j}(\text{Participants' rating of frustration}) + \beta_{6j}(\text{Participants' rating of conflict}) + \beta_{7j}(\text{Participants' rating of persuasion}) + \beta_{8j}(\text{Participants' rating of conceding}) + \beta_{9j}(\text{Trained coders' ratings of connection}) + \beta_{10j}(\text{Trained coders' ratings of discomfort}) + \beta_{11j}(\text{Trained coders' ratings of frustration}) + \beta_{12j}(\text{Trained coders' ratings of conflict}) + \beta_{13j}(\text{Trained coders' ratings of persuasion}) + \beta_{14j}(\text{Trained coders' ratings of conceding}) + r_{ij},$$

where Y_{ij} is the relationship satisfaction at Time 2 of individual j within couple i: β_{0j} is the relationship satisfaction mean at Time 2 across all couples; and r_{ij} is the residual variance in repeated measurements for couple member j.

Table A-6 provides the results from the model. At the individual level, couple members who were viewed by trained coders as conceding less at Time 1, reported greater relationship satisfaction at Time 2, $t(126) = -2.33$, $p < .05$. Additionally, couple members who perceived less conflict at Time 1 significantly predicted relationship satisfaction at Time 2, $t(126) = -2.13$, $p < .05$. The other communication process variables and relationship satisfaction at Time 1 did not predict relationship satisfaction at Time 2 ($p > .05$). Individual level factors examined in this model accounted for 3.7% of the 91.6% of total variance in relationship satisfaction attributed to individual differences. At the couple level, length of the couples' relationship was not significantly related to relationship satisfaction at Time 2.

Communication Processes, Relationship Satisfaction and

Adolescent Couples Relationship Dissolution

The following analyses include couples in which both participants completed the follow-up. Of the 211 original couples, 9 couples (4.3%) did not complete the follow-up. Another 19 couple members reported still dating, however, their partners did not return a survey. Therefore these 19 couples, or (9%) of the original 211 were not included in the analyses. Another 7 couples (3.3%) were not included due to missing data at Time 1. As a result, longitudinal analyses was based on 176 of the original 211 couples, or (83.4%) of the sample.

Of interest in hypothesis three is predicting if couples were still together at the time of follow-up. Since this is a dichotomous variable, HGLM analyses were performed using Bernoulli procedure for dichotomous outcomes with robust standard errors. Couples' relationship length, and gender of couple members were used as control variables. All factors were centered around the grand mean. The effects of age as an interaction with the individual characteristics in all

models were non-significant, so these terms were eliminated from the final model. The following model was used to assess the probability of couples staying together at Time 2:

$$log[P/(1-P)] = \beta_0 * (\text{Length of couples' relationship}) + \beta_1(\text{AGE}) + \beta_2(\text{Relationship Satisfaction Time 1}) + \beta_3(\text{Couples' rating of connection}) + \beta_4(\text{Couples' rating of discomfort})) + \beta_5(\text{Couples' rating of frustration}) + \beta_6(\text{Couples' rating of conflict}) + \beta_7(\text{Couples' rating of persuasion}) + \beta_8(\text{Couples' rating of conceding}) + \beta_9(\text{Trained coders' ratings of connection}) + \beta_{10}(\text{Trained coders' ratings of discomfort}) + \beta_{11}(\text{Trained coders' ratings of frustration}) + \beta_{12}(\text{Trained coders' ratings of conflict}) + \beta_{13}(\text{Trained coders' ratings of persuasion}) + \beta_{14}(\text{Trained coders' ratings of conceding})$$

where the βs represent the logs odd ratio of linear change in each variable and the probability of couples staying together at Time 2. For each predictor variable, the first and third quartile values, interquartile range (unit change) and odds ratios with *p* values are given in Table A-7. The odds ratios represent the change in odds of a couples staying together at Time 2 as the result of a change in that variable from the 25th to the 75th percentile, which permits a direct comparison of the influence of the various predictor variables after partialing out the effects of all of the other variables entered into the model. Predicting between-couple difference, couples who were dating longer at Time 1 were more likely to still be together at Time 2 ($t = 2.21$, $p = 0.029$). A unit increase in weeks dating, 48 weeks, are 101% more likely to be together at Time 2. At the couple level, age was found to be associated with a higher rate of couples still being together at Time 2. A unit increase in age significantly increased the odds of couples staying together by 119%. Couples' ratings of connection were also found to be associated with a higher rate of couples' retention at Time 2. A unit increase in couple members' ratings of connection at Time 1 increased the odds of couples staying together by 124%. Additionally, couple members' ratings of relationship satisfaction approached significance ($p = .06$).

CHAPTER 4

DISCUSSION

Observational research has been a vital component of understanding relationships for over 80 years (Welsh & Dickson, 2005). However, most of the standardized coding systems to date do not capture participants own meanings and emotions associated with their interactions. Bernard (1972) first speculated that there were two relationships in every marriage, his and hers, which she proposed were experienced differently and had different consequences for each couple member. With the introduction and popularity of social constructionist theory (Hoffman, 1990) researchers began to appreciate participants' perceptions of interactions. The majority of this research has been on dating and married adults. Over the past decade, various theorists have suggested that experiences in adolescent romantic relationships may influence the nature of subsequent close relationships including marriages (Collins & Van Dulmen, 2006; Furman & Flanagan, 1997; Giordano, Manning, & Longmore, 2006). Reaching the same conclusion, marital researchers have suggested that understanding healthy adult relationships requires an understanding of the early relationship experiences of each partner (Parke, 1998; Story, Karney, Lawrence, & Bradbury, 2004).

The purpose of this study was to incorporate both adolescent dating couple members' and trained coders' subjective understanding of communication processes in predicting couple members' relationship satisfaction and whether couples were still together a year later. Couple members' and trained coders' subjective understanding of the interaction were measured using the same observational methodology, variables of interest, and scale level of those variables. In

general, the findings of this study provides additional evidence for the theoretical claim that both couple members' and trained coders' perceptions of an interaction include unique contributions in understanding couple members' relationship satisfaction and whether a couple stays together a year later.

Subjective Understanding of Couples' Interaction

The first goal of the current study was to examine similarities and differences in couples' and trained coders' subjective understanding of couples' observed interaction both from a relative sense and in absolute magnitude. First, in testing for relative differences, we examined the correlations between couple members' and trained coders' ratings of the interaction. We proposed that romantic couple members' perceptions would have a significantly higher correlation than the correlation between boyfriends' and trained coders or girlfriends' and trained coders. This hypothesis was not supported. Analyses examining the differences between these correlations revealed that they were not significantly different. Nevertheless, the moderate and significant correlations between couple members' and trained coders' perceptions were only moderate, with the highest being .44, which clearly suggests they were not viewing the interaction the same.

Our findings suggest that couple members view their interaction through their own lenses. These findings do not support the idea that adolescent dating couples have a private communication system as Gottman (1979) described in married couples. As these are relatively new forms of relationships, and fleeting in nature, perhaps couple members have not yet spent the time needed to develop a shared reality. Alternatively, the high correlations between couple members' ratings of themselves and their ratings of their partners suggest that adolescents'

perceptions of their interactions were more about themselves than about what their partners were actually doing or feeling during the interaction (Haugen, Welsh, & McNulty, 2008). Adolescence is a developmental period that consists of important individual as well as relational tasks. Sullivan (1953) considered the ability to develop intimate romantic relationships as one of the primary developmental tasks of adolescence. Erikson (1968) believed that the search for identity was the primary developmental task of adolescence. He hypothesized that adolescents solidify their beliefs and identity through the process of sharing themselves with significant others. Part of this search is striving for autonomy from one's parents while maintaining moderate to high levels of individuality within the context of moderate to high levels of connectedness with others (Grotevant & Cooper, 1985).

The second way we investigated differences in raters' perceptions was by examining the absolute magnitude of the differences between couple members' and trained coders' perceptions. We hypothesized that couple members would perceive significantly higher levels of positive dimensions and lower levels of negative dimensions compared to trained coders' perceptions of the interaction. In contrast to the results for testing relative differences, when examining differences in the absolute magnitude of perceptions between couple members and trained coders, we did find support for our first hypothesis. Specifically, we found that couples felt a larger magnitude of connection, a lower magnitude of discomfort, and perceived a lower magnitude of persuasion during the interaction compared to trained coders. Additionally, girlfriends reported feeling significantly less frustration and observing less conflict than reported by trained coders. Boyfriends and trained coders significantly differed in their perceptions of conceding, however it was not in the proposed direction. Boyfriends perceived themselves conceding significantly more than trained coders. Boyfriends' ratings of frustration and conflict

did not significantly differ from trained coders. Girlfriends' ratings of conceding did not significantly differ from trained coders.

These findings suggest that adolescents' communication processes, as perceived by couple members and trained coders, are more complicated than suggested in prior research. The over-reporting of connection and under-reporting of discomfort and persuasion compared to trained coders is consistent with the developmental theory of adolescent romantic relationships as positive feedback systems (Furman & Shoemaker, 2008). Specifically, romantic partners participating in problem-solving tasks tend to amplify positive behaviors in order to minimize or avoid negative interactions in efforts to maintain relationships. Inconsistent with this theory is the relatively high rate of conflict perceived by couple members. In fact, conflict was rated the second highest, behind connection by couple members. Our findings pertaining to perceptions of conflict may differ from those obtained in other studies due to methodological and measurement issues. Furman and Shoemaker (2008) found that adolescents reported low rates of conflict in their interactions with their dating partner when asked about conflict using a global questionnaire after the interaction; whereas, our relatively high rates of observed conflict reported by both couple members and observers were assessed by video-recall methodology. Couples may be less likely to recall perceiving conflict when measured globally using a questionnaire than when using Video-recall micro-analytic assessment methodology. The distinction between methods used cannot be ignored from the conceptual understanding of interactions (Welsh & Dickson, 2005).

Subjective Understanding of Couples' Interaction and Relationship Satisfaction

The second goal of the current study was to examine the unique contributions of couple members' and trained coders' perceptions in predicting couples' relationship satisfaction a year later. We hypothesized that couple members' relationship satisfaction a year later would be associated with couple members' and trained coders' perceptions of the interaction while controlling for couples' original reports of relationship satisfaction and the length of couple members' relationship. Specifically, we predicted that lower levels of negative perceptions and higher levels of positive perceptions would predict higher relationship satisfaction of couples together a year later. As expected, couple members' perceiving lower levels of conflict during the interaction at Time 1 predicted higher relationship satisfaction a year later. As mentioned previously, couple members do not appear to be ignoring conflict that takes place during the interaction. In addition, couples who conceded less, as reported by trained coders, reported higher relationship satisfaction a year later.

Consistent with the literature, these findings indicate how the proper conflict resolution strategies influence relationship satisfaction a year later. Conflict resolution strategies reflect interpersonal behaviors that arise during a disagreement within a relationship. Negative features of conflict (i.e., conceding and attacking one's partner verbally or physically) have been associated with marital dissolution (Gottman, 1994). More recently, Shulman, Tuval-Mashiach, Levran, and Anbar (2006) found adolescent couples who demonstrated proper conflict resolution strategies were in relationships longer. Overall, minimizing the level of explosive conflict (as reported by couples) and not conceding too much (as perceived by trained coders) predicted greater relationship satisfaction at Time 2. Results, while not significant for all communication

process variables, capture the important role both couple members' and trained coders' have in observational research.

Couple members on average reported lower relationship satisfaction at Time 2 than at Time 1, which is a consistent finding with married couples in longitudinal studies (Glenn, 1998). This may suggest that adolescent couples recognized new negative behaviors or feelings within their relationships. In addition, adolescent couple members may have gained maturity and security within their relationships over the course of the year, which may have allowed them to consciously accept some of their negative feelings of their relationships into their report of their relationship satisfaction. This finding appears to be unrelated to the length of time couples have been together, as length of relationship was not a significant predictor.

Couple members' relationship satisfaction at Time 1 did not predict their relationship satisfaction at Time 2. This lack of association for adolescents' relationship satisfaction from year to year is inconsistent with the relative stability of relationship satisfaction of married couples over time (Gottman & Krokoff, 1989). The fragile nature of adolescent romantic relationships may explain the lack of association of their relationship satisfaction from one year to the next. Adolescence is a period in which multiple life changes occur resulting in a "pile-up" of life events, which adolescents must struggle to manage (Simmons, Burgeson, Carlton-Ford, & Blyth, 1987). These events can include changes brought on by the onset of puberty such as moodiness and changes in physical appearance. Adolescents also are learning to deal with new social and environmental factors such as more complex school schedules and new social hierarchies within peer groups. Adolescents have many new domains to learn how to manage including romantic relationships. One might intuitively expect relationship satisfaction would be related primarily to dyadic factors. Surprisingly, 91.6% of the variance for predicting adolescent

romantic couples' relationship satisfaction at Time 2 was attributed to individuals' characteristics within couples (plus error). The lack of association we identified in the relationship satisfaction construct and the low dyadic component of relationship satisfaction, in conjunction with our previous findings that adolescent romantic couples project their own feelings and behaviors onto their partners, suggests that adolescent romantic relationships are more about the individuals within the couple than the couple as a dyadic unit. Therefore, it may be individual, developmental changes and not relational factors that explain the lack of association in relationship satisfaction from Time 1 to Time 2.

Taken together, findings from this study suggest that romantic relationships may serve a unique developmental role in adolescence that would differ from the developmental role of romantic relationships' later in life. Adolescent couple members projected their own feelings and behaviors onto their partners, suggesting couple members may not be particularly responsive to the feelings and behaviors of their partners. This is consistent with Erikson's (1968) characterization of adolescence as the period of life during which one establishes a sense of personal identity. According to his theory, adolescents utilize romantic partners as soundboards to project and test one's identity. The feedback, in turn from one's partner, serves to aid in defining and revising one's identity. Parent-adolescent and adolescent-peer interactions are utilized in a similar way. Adolescents' experiences in their relationships with family and friends carryover to some extent to their romantic relationships (Furman & Shoemaker, 2008). As romantic relationships are a newer form of relationship adolescents are learning how to manage, perhaps this projection fosters a sense of security through predictability (Holmes & Rempel, 1989).

Adolescent romantic couples' original relationship satisfaction was not associated with their relationship satisfaction a year later. According to Erikson's theory, adolescent romantic relationships are one of many stressful events adolescents are trying to manage. However, at this stage of development, adolescent issues are based within the individual. This is consistent with the finding that the amount of variance attributed to individual characteristics predicting couples' relationship satisfaction a year later was extremely high. Erikson believed one first has to achieve a reasonable sense of personal identity before being able to have intimacy in interpersonal relationships. This appears to be consistent with our findings that suggest adolescents are self-focused in their romantic relationships in contrast to adult romantic relationships who seek understanding and intimacy. As this was not originally hypothesized, more research is needed to understand this theoretical role of adolescent relationships.

Subjective Understanding of Couples' Interaction and Relationship Dissolution

The third goal of the current study was to examine the unique contributions of couple members' and trained coders' perceptions in predicting whether couples were still dating a year later. We hypothesized that lower levels of negative perceptions and higher levels of positive perceptions by both couple members and trained coders would predict whether couples were together a year later. Couples' original report of relationship satisfaction and length of couple members' relationship were control variables. Our results provided partial support for the hypothesis, as one communication process variable was significant. As predicted, couples who felt significantly more connection during the interaction were more likely to be together a year later. This finding suggests that couple members' feelings of connection above everything else

predicted whether couples were still together a year later. This is in the context of a problem-solving task with one's partner.

Our findings portray a slightly different picture than do those from Shulman and colleagues' (2006) observational study predicting relationship dissolution in a sample of Israeli adolescents. Shulman and his colleagues found that couples who were highly skillful in acknowledging conflict and working through these problems with positive affect led to relationships lasting longer after two years. In comparison to these couples, conflictive couples, who lacked conflict management skills, were not able to maintain their relationship past 3 months. In constrast to Shulman and colleagues' findings, we did not find that conflict significantly predicted later breakups. Our findings suggest that the feelings of connection and closeness, regardless of conflict, may be the critical component that predicts whether couples are together a year later. Shulman and colleagues also found couples who remained together displayed high levels of connection. As mentioned above, adolescents are going through individual, social, and environmental stressors during this developmental period. Furthermore, there are more forces encouraging adolescent couples to break up than stay together such as geographic separations, parental and close friend pressures, and new romantic partners. Our findings suggest that the perceived feelings of connection or closeness may be what may keep them together in spite of the barriers.

This study has several strengths. One major strength of this study is the sample size, which is more than double compared to the majority of other extensive studies on adolescent romantic relationships. Second, this study utilizes a multi-method approach using data from multiple informants (i.e. couple members' perceptions and trained coders' perceptions). In addition to having multiple informants, both couple members and trained coders are using

identical methods, variables of interest, and scale level in rating the communicating process dimensions. In addition, the longitudinal data collected enabled the prediction of long-term effects.

Limitations and Future Directions

While this study contributes to our understanding of adolescent romantic couples' communication processes, the generalizability of our findings is limited in several ways. First, the sample consisted predominately of male-female Caucasian adolescents couples who lived in the surrounding region. Results, therefore, may not generalize to ethnic and sexual minority adolescents. In addition, participants in the study were comfortable enough in their relationship to come to a research lab in order to participate in the study. This sample may differ in important ways from a general sample of individual adolescents or a sample of less committed adolescent couples.

In the present study, we examined adolescent couples' communication processes using Video-recall micro-analytic methodology predicting both relationship satisfaction and whether couples are together a year later. Future work should examine participants' and trained coders' perceptions measured by both Video-recall micro-analytic methodology as well as global assessments. This study may have found a unique developmental role for adolescence romantic relationships that differs from romantic relationships as adults. Longitudinal studies are needed to better understand the developmental trajectory of adolescents' subjective understanding, identity development and relational processes over the course of early adolescence to adulthood. Additionally, research needs to be conducted with ethnic and sexual minority adolescents in order to better understand the full diversity of romantic interactions.

The model investigated in this study examines the direct link between subjective understanding of couple members and future relationship satisfaction and dissolution. Studies have demonstrated other factors that were not addressed in this study but which are associated with relationship satisfaction and dissolution directly or operating through subjective understanding. One such factor is Attachment. Attachment theory, which evolved from Bowlby's (1969) work suggested that the nature of early caregiver-infant relationship translates into cognitive and affective representations (both conscious and unconscious) of these early attachment relationships. The internal working model shaped is used to guide the subjective understanding of behaviors and intentions of other attachment figures throughout his or her life (Collins & Feeney, 2004; Sümer & Cozzarelli, 2004; Hazan & Shaver, 1987). Depression (Remen & Chambless, 2001), anxiety (Carrere & Gottman, 1999; Caughlin, Huston, & Houts, 2000), and substance use/abuse (Amato & Previti, 2003) have also been shown to be linked to subjective understanding and relational outcomes as they influence the capacity for flexible thinking, lead to distorted views of the self, and undermine attention to others' experience. It would be beneficial to include these factors in future studies in order to gain a better understanding of the indirect/direct influence on adolescent romantic couples and subsequent adult romantic relationships.

Summary

The purpose of this study was to examine the similarities and differences of adolescent couple members' and trained coders' subjective understanding and to assess simultaneously their unique variance predicting relationships satisfaction and whether couples were dating a year later. This work goes beyond previous observational research of adolescent romantic couples'

interactions by including couple members' subjective understanding in predicting relationship satisfaction and whether couples are together a year later. Most observational research on adolescent romantic couples' interactions relies on trained coders. If adolescent romantic couples' subjective understandings of their interactions are measured, they are usually measured globally using questionnaires. The results of this study suggest that both couple members', as well as trained coders' perceive interactions differently. In addition, couple members' and trained coders' perceptions contribute to the understanding of adolescent romantic couples' individual and relational functioning. Specifically we found couple members' and trained coders' perceptions of the interactions and not couple members' attitudes about the relationship predicted couples' relationship satisfaction a year later. Similar to marital research (Rogge, Bradbury, Hahlweg, Engl, & Thurmaier, 2006), we found different antecedents predicting relationship satisfaction and marital dissolution. Specifically, conflict resolution strategies predicted couples' relationship satisfaction a year later. Couple members' feelings of connection above everything else predicted whether couples were still together a year later. Although not hypothesized, there appears to be consistent findings suggesting that adolescent romantic relationships may serve more of an individual developmental role in facilitating identity development rather than being about the development of dyadic intimacy. Future research needs to investigate this possibility further.

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APPENDICES

APPENDIX A: TABLES

Table A-1

Means and Standard Deviations

	Boyfriends' ratings (N=40 segments) (N=40		Girlfriends' ratings (N=40 segments)		Trained Coder Ratings' Boyfriends segments)		Trained Coder Ratings' Girlfriends (N=40 segments)	
	M SD		M SD		M SD		M SD	
Communication Process (range: 0-4)								
Connection	2.82 0.89		2.85 0.87		1.34 0.64		1.31	0.65
Discomfort	0.91	1.05 0.75		0.88 1.12		0.71 1.07		0.68
Frustration	0.89 1.00		0.88 0.89		0.93 0.72		1.25 0.79	
Conflict	1.40 0.94		1.33 0.93		1.37 0.73		1.49 0.78	
Persuading	1.25 0.91		1.20 0.95		1.51 0.60		1.61 0.65	
Conceding	0.75 0.75		0.60 0.64		0.57 0.32		0.55 0.33	
Age	17.44 1.77		16.74 1.48					
Weeks dating	45.83 47.8	8	44.81 45.3	4				
Relationship Satisfaction (Time 1; range: 5-30)	26.11 4.12		26.25 3.99					
Relationship Satisfaction (Ti me 2; *n* = 71; range: 5-30)	23.63 5.38		24.49 4.55					

Note. n=204 unless otherwise noted

Table A-2

Correlations between Couples' Own Communication Process and

Their Ratings of Their Partners' Communication Process

	Connection	Discomfort	Frustration	Conflict	Persuading	Conceding
Boyfriends rating self – Boyfriends rating girlfriends	.88**	.80**	.85**	.87**	.83**	.73**
Girlfriends rating self – Girlfriends rating boyfriends	.91**	.73**	.82**	.85**	.84**	.75**
Trained coders rating boyfriends – Trained coders rating girlfriends	.86**	.56**	.73**	.83**	.73**	.12

* $p < .05$, ** $p < .01$

Table A-3

Correlations among Independent Variables at Time 1[a]

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Relationship Satisfaction (T1)	--	.08	.04	.30**	-.31**	-.44**	-.43**	-.31**	-.36**	.25**	-.14*	-.34**	-.32**	-.28**	-.16*
2. Weeks dating	-.10	--	.40**	.11	-.14*	-.05	.12	.05	-.04	.07	-.15*	.04	-.02	.01	.10
3. Age	-.14*	.44**	--	.06	-.08	-.06	-.05	-.09	-.14*	.04	-.26**	.00	.02	.07	-.02
Couple's ratings:															
4. Connection	.32**	.09	-.06	--	-.37**	-.53**	-.32**	-.28**	-.14*	.43**	-.17*	-.39**	-.35**	-.28**	-.20**
5. Discomfort	-.05	-.08	-.04	-.39**	--	.67**	.31**	.32**	.54**	-.20**	.18*	.16*	.14*	.10	.19**
6. Frustration	-.30**	.05	.07	-.46**	.65**	--	.54**	.57**	.56**	-.37**	.12	.48**	.39**	.35**	.25**
7. Conflict	-.27**	.03	.05	-.27**	.37**	.57**	--	.73**	.54**	-.38**	.07	.44**	.41**	.39**	.21**
8. Persuading	-.22**	.02	.04	-.27**	.44**	.61**	.81**	--	.61**	-.27**	.05	.43**	.42**	.40**	.22**
9. Conceding	-.10	-.02	.05	-.16*	.54**	.61**	.55**	.67**	--	-.13	.13	.24**	.18*	.14*	.20**
Coder's ratings:															
10. Connection	.31**	.02	.06	.36**	-.17*	-.31**	-.39**	-.28**	-.07	--			-.40**	-.28**	-.14*
11. Discomfort	-.05	-.10	-.14	-.19**	.25**	.20**	.13	.13	.13	-.16*	--		.10	.12	.34**
12. Frustration	-.24**	.06	.05	-.33**	.11	.31**	.31**	.24**	.03	-.45**	.36**	--	.81**	.76**	.42**
13. Conflict	-.26**	.02	.03	-.37**	.12	.28**	.44**	.33**	.02	-.49**	.16*	.75**	--	.94**	.31**
14. Persuading	-.23**	.05	.05	-.33**	.10	.24**	.39**	.33**	.00	-.33**	.16*	.72**	.91**	--	.33**
15. Conceding	.03	-.01	.05	-.17*	.14*	.06	.24**	.20**	.11	-.04	.41**	.36**	.25**	.28**	--

[a] Boyfriend correlations are below the diagonal and girlfriend correlations are above the diagonal.
* $p < .05$, ** $p < .01$

Table A-4

Williams's t Test on Correlations of Couple Members' and Trained Coders' Perceptions

	Connection	Discomfort	Frustration	Conflict	Persuading	Conceding
Boyfriends' ratings - Girlfriends' ratings	.42**	.16*	.39**	.40**	.37**	.13
Boyfriends' ratings - Trained coder's rating boyfriend	.36**	.25**	.31**	.44**	.33**	.11
	t_2 (201)=.38	t_2 (201)=.31	t_2 (201)=.48	t_2 (201)=.77	t_2 (201)=1.09	t_2 (201)=.10
Girlfriends' ratings - Boyfriends' ratings	.42**	.16*	.39**	.40**	.37**	.13
Girlfriends' ratings - Trained coder's rating girlfriend	.43**	.18*	.48**	.41**	.40**	.20*
	t_2 (201)=.77	t_2 (201)=.64	t_2 (201)=.78	t_2 (201)=.99	t_2 (201)=.04	t_2 (201)=1.31

* $p < .05$ ** $p < .01$

Table A-5

Means and Standard Deviations of Different Raters' Reports of Adolescent Couple Interaction

Rater	Connection M (SD)	Discomfort M (SD)	Frustration M (SD)	Conflict M (SD)	Persuading M (SD)	Conceding M (SD)
Boyfriends' ratings	2.82_{a} (.89)	0.91_{c} (1.05)	0.89 (1.00)	1.40 (.94)	1.25_{g} (.91)	0.75_{i} (.75)
Observers' ratings of Boyfriend	1.34_{a} (.64)	1.12_{c} (.71)	0.93 (.72)	1.37 (.73)	1.51_{g} (.60)	0.57_{i} (.32)
Girlfriends' ratings	2.85_{b} (.87)	0.75_{d} (.88)	0.88_{e} (.89)	1.33_{f} (.93)	1.20_{h} (.95)	0.60 (.64)
Observers' ratings of Girlfriend	1.31_{b} (.65)	1.07_{d} (.68)	1.25_{e} (.79)	1.49_{f} (.78)	1.61_{h} (.65)	0.55 (.33)

Note. **a**: $t(203) = 23.69$, $p<.01$; **b**: $t(203) = 26.69$, $p<.01$; **c**: $t(203) = -2.74$, $p<.01$; **d**: $t(203) = -4.56$, $p<.01$; **e**: $t(203) = -6.11$, $p<.01$; **f**: $t(203) = -2.34$, $p<.03$; **g**: $t(203) = -4.17$, $p<.01$; **h**: $t(203) = -6.45$, $p<.01$; **i**: $t(203) = 3.12$, $p<.01$.

Table A-6

Couples' and Trained Coders' Communication Process Predicting Relationship Quality at Time 2

Predic tor Variables	Relationship Quality unstandardized coefficient	(SE)
Model 2		
Between Couples		
Intercept	4.81	(.07)**
Weeks dating	0.00	(.00)
Within Couples		
Gender	-0.32	(.18)
Relationship Quality Time 1	0.05	(.03)
Participants' ratings of connection	-0.11	(.11)
Participants' ratings of discomfort	0.05	(.12)
Participants' ratings of frustration	-0.05	(.12)
Participants' ratings of conflict	-0.40	(.19)*
Participants' ratings of persuasion	0.20	(.15)
Participants' ratings of conceding	0.20	(.18)
Trained coders' ratings of participants' connection	-0.07	(.13)
Trained coders' ratings of participants' discomfort	-0.09	(.14)
Trained coders' ratings of participants' frustration	-0.07	(.19)
Trained coders' ratings of participants' conflict	0.12	(.37)
Trained coders' ratings of participants' persuasion	0.06	(.43)
Trained coders' ratings of participants' conceding	-0.57	(.26)*

* = $p \leq .05$, ** = $p \leq .001$

Table A-7

Logistic Regression Predicting Couples Still Together vs. Broken Up Using Couples' and Trained Coders' Communication Process

Variable	Predicting breakup			
	Q1	Q2	IQR	OR (*p* value)
Weeks dating	12.63	60.75	48.12	**1.01 (0.03)***
Gender	.25	.75	.50	0.87 (.06))
Age	16.00	18.00	2.00	**1.19 (0.01)***
Participants' ratings of connection	2.25	3.58	1.33	**1.24 (0.02)***
Participants' ratings of discomfort	0.10	1.28	1.18	1.07 (0.49)
Participants' ratings of frustration	0.10	1.57	1.47	1.09 (0.49)
Participants' ratings of conflict	0.55	2.10	1.55	0.91 (0.38)
Participants' ratings of persuasion	0.41	2.00	1.59	1.00 (0.97)
Participants' ratings of conceding	0.12	1.13	1.01	0.98 (0.89)
Trained coders' ratings of participants' connection	0.88	1.79	0.91	1.20 (0.42)
Trained coders' ratings of participants' discomfort	0.55	1.55	1.00	0.90 (0.46)
Trained coders' ratings of participants' frustration	0.45	1.60	1.15	0.78 (0.23)
Trained coders' ratings of participants' conflict	0.85	1.98	1.13	0.91 (0.81)
Trained coders' ratings of participants' persuasion	1.07	1.98	0.91	1.91 (0.10)
Trained coders' ratings of participants' conceding	0.30	0.75	0.45	1.44 (0.11)

1. Unlike standard HLM analyses, variance in non-linear HGLM models is heteroscedastic and is therefore not reported.

* $p < .05$

APPENDIX B: SCALES

APPENDIX B-1

Demographic Questionnaire

1. Gender:

2. Age:

3. Date of Birth: (MM/DD/YY) _____

APPENDIX B-2

Modified Issues Checklist

Listed below are some issues that many dating couples disagree about. Please select one issue from the page **OR** write one in the space provided that relates to you and your partner. You will be asked to discuss this issue for seven minutes while your conversation is recorded. At the bottom, write the number of the issue you choose to discuss with your partner along with two alternate issues.

1. We never have enough money or time to do fun things on dates.
2. Sometimes I wish my partner and I could spend more time talking together.
3. My partner doesn't call or show up when she says she will.
4. My partner and I disagree over how much time we should spend with each other.
5. Sometimes my partner doesn't seem to trust me enough or sometimes I do not trust my partner enough.
6. Sometimes my partner doesn't understand me or sometimes I do not understand my partner.
7. My partner and I disagree over how much affection we should show in public.
8. My partner and I disagree over how committed we are to each other.
9. My partner and I disagree about how much time we should spend with our friends.
10. I don't like my partner's friends or my partner doesn't like mine.
11. My friends do not like my partner or my partner's friends do not like me.
12. My partner sometimes puts me down in front of others.
13. I don't always approve of how my partner dresses/acts around the opposite sex.
14. My partner has a hard time dealing with my ex-boyfriend/girlfriend.
15. My partner smokes, drinks, or does drugs more than I would like.
16. We have very different thoughts about religion, politics or other important issues.
17. My partner and I disagree about sex, sexual behaviors, or contraception.
18. My partner expects me to be interested in his/her hobbies.
19. My parents do not like us being together or feel we spend too much time together.
20. My parents do not like my partner or my partner's parents do not like me.
21. Adults at my school or church do not approve of my relationship with my partner.

Other

22. Other issue we disagree about _____.

Main Issue I'd like to discuss: _____

First Alternate Issue: _____

Second Alternate Issue: _____

APPENDIX B-3

Video Recall Questions for Interaction Task for Couple Members

1. I was feeling CONNECTED (or close) to my partner.
   0 1 2 3 4
   Distant Very Connected

2. I was being CONFLICTUAL (or challenging) with my partner.
   0 1 2 3 4
   Not at all Conflictual Strongly Conflictual

3. My partner was being SARCASTIC.
   0 1 2 3 4
   Not at all Sarcastic Very Sarcastic

4. I was trying to PERSUADE my partner.
   0 1 2 3 4
   Not trying at all Tryi ng very hard to Persuade

5. I was GIVING IN to my partner.
   0 1 2 3 4
   Not at all Giving in Giving in a lot

6. I was feeling UNCOMFORTABLE.
   0 1 2 3 4
   Not at all Uncomfortable Very Uncomfortable

7. I was feeling FRUSTRATED.
   0 1 2 3 4
   Not at all Frustrated Very Frustrated

8. My partner was feeling CONNECTED (or close) to me.
   0 1 2 3 4
   Distant Very Connected

9. My partner was being CONFLICTUAL (or challenging) with me.
   0 1 2 3 4
   Not at all Conflictual Strongly Conflictual

10. My partner was being SARCASTIC.
    0 1 2 3 4
    Not at all Sarcastic Very Sarcastic

11. My partner was trying to PERSUADE me.
    0 1 2 3 4
    Not trying at all Tryi ng very hard to Persuade

12. My partner was GIVING IN to me.
    0 1 2 3 4
    Not at all Giving in Giving in a lot

13. My partner was feeling UNCOMFORTABLE.
    0 1 2 3 4
    Not at all Uncomfortable Very Uncomfortable

14. My partner was feeling FRUSTRATED.
    0 1 2 3 4
    Not at all Frustrated Very Frustrated

APPENDIX B-4

Video Recall Questions for Interaction Task for the Trained Coders

1. The male was feeling CONNECTED (or close) to his partner.
   0 1 2 3 4
   Distant Very Connected

2. The male was being CONFLICTUAL (or challenging) with his partner.
   0 1 2 3 4
   Not at all Conflictual Strongly Conflictual

3. The male was being SARCASTIC.
   0 1 2 3 4
   Not at all Sarcastic Very Sarcastic

4. The male was trying to PERSUADE his partner.
   0 1 2 3 4
   Not trying at all Tryi ng very hard to Persuade

5. The male was GIVING IN to his partner.
   0 1 2 3 4
   Not at all Giving in Giving in a lot

6. The male was feeling UNCOMFORTABLE.
   0 1 2 3 4
   Not at all Uncomfortable Very Uncomfortable

7. The male was feeling FRUSTRATED.
   0 1 2 3 4
   Not at all Frustrated Very Frustrated

8. The female was feeling CONNECTED (or close) to her partner.
   0 1 2 3 4
   Distant Very Connected

9. The female was being CONFLICTUAL (or challenging) with her partner.
   0 1 2 3 4
   Not at all Conflictual Strongly Conflictual

10. The female was being SARCASTIC.
    0 1 2 3 4
    Not at all Sarcastic Very Sarcastic

11. The female was trying to PERSUADE her partner.
    0 1 2 3 4
    Not trying at all Tryi ng very hard to Persuade

12. The female was GIVING IN to her partner.
    0 1 2 3 4
    Not at all Giving in Giving in a lot

13. The female was feeling UNCOMFORTABLE.
    0 1 2 3 4
    Not at all Uncomfortable Very Uncomfortable

14. The female was feeling FRUSTRATED.
    0 1 2 3 4
Not at all Frustrated Very Frustrated

APPENDIX B-5

Observer Coding Manual for the Video-Recall Procedure

DEMONSTRATING POSITIVE CONNECTED/CLOSENESS

******* Score based on quality of verbalizations, voice tone, and behavioral indicators (e.g., gestures, facial expressions).

QUALITIES MEASURED: Encouraging, acknowledging, facilitating, supportive, engaged
SCORE

0 Code 0 if no closeness is demonstrated during the segment.

1 **a) tone**: mild/neutral **content:** negotiating or inquiring
Partner asking the other for his/her preference, opinion, or guidance in a connecting manner and giving/getting a positive response. Content can even be superficial.
Eg., *What do you think? How many kids are we going to have? Compromise?*

b) tone: mild/subtle **content:** indirect acknowledgment or encouragement
Mild encouragement with a mild tone. Allowing response from partner.
Behavioral example: some eye contact with instances of glancing away, sm iling.

2 **a) tone:** interested **content**: facilitating, agreement (not arguing)
Encouraging in a more positive, genuine tone.
Eg., *That's a good question; You're right, mm hm*
Behavioral example: nodding head in agreement, moving closer/leaning toward, holding hands.

b) tone: enthusiastic **content:** expanding, elaborating
Continuing the partner's story line, adding to the partner's thought and maintaining eye contact. Light touching

3 **a) tone:** positive **content:** direct praise/affirmation
Kind praise of other's specific action or quality.
Eg., *You're good at sports so our kids will probably be athletes*
Behavioral example: touching in a positive manner (stroking leg, playing with toes), intimate whispering that is playful or positive.

b) tone: positive/excited **content:** reciprocal positive escalation
Back and forth enthusiastic exchange to create and build an idea.
E.g., *Female: We want to have a fun relationship. Male: Yeah-we'll go on dates*. Female: We'll go dancing. Male: Yeah-ballroom dancing. (All said with happy and exited voices and laughter).

4 **a) tone:** positive **content:** direct, affirming
Direct affirmation of other as a whole person (not just praise of action or deed) or praise of the couple as a unit.

Eg., I love you; You're going to make a great mom/dad. I think we'll be great parents.

Behavioral examples: big gestures of physical affection (e.g., moving very close and grabbing and holding both hands)

b) <u>tone:</u> positive **<u>content:</u>** self-disclosing, crying

Encouraging acknowledgment of other through self revelation with positiv e tone. Eg., *Using an example from one's own relationship that shows closeness.*

c) Willing to change for partner or willing to do something positive for partner giving gifts or apologizing.

CONFLICT

******* Score based on quality of verbalizations, voice tone and behavioral indicators (e.g. gestures, facial expressions).

QUALITIES MEASURED: disagreeing, devaluing, expression of anger

SCORE

0 Code 0 if no conflict is demonstrated during the segment.

1 **a) tone**: mild **content:** disagreement

Disagreement over the truth value of a statement or disagreement with the other's stated opinion or position without negative affect.

Eg., *I don't agree with that; That is not the way my mom is.*

Behavioral examples: shaking head, frowning

2 **a) tone:** invested **content:** disagreement

Backing up a disagreement with additional evidence, elaboration, or support.

Eg., *We should too have a curfew for our kids. They need to have some rules. I don't want my kids to end up like (a friend of the couple).*

3 **a) tone:** medium/high **content:** argument

Active back and forth arguing. The disagreement escalates quickly with both members actively promoting their sides.

E.g., *You're wrong, no you're wrong*

b) tone: medium **content**: provocative/demanding

Statement or gesture whose intention is to irritate or provoke the other. Do not code any criticism or negative comment that devalues the other.

Eg., *Tell me who.*

Behavioral examples: raising eyebrows, finger pointing

c) tone: medium **content:** reaction

Reaction to 2b.

Eg., Don't say things like that.

Behavioral example: crossing arms and leaning away, challenging stare

4 **a) tone:** high **content:** insulting, devaluing

Mean direct affront to the other in a high, harsh tone; devaluing of the other as a whole person includes name-calling.

E.g., *You are stupid sometimes*.

b) tone: yelling, screaming **content:** opposition, anger

Opposing or arguing with a raised voice; mimicking in a teasing tone; making sexist comments or comments about the other's family

Behavioral example: pushing

SARCASM

******* Score based on quality of verbalizations, voice tone, or gestures.

QUALITIES MEASURED: bitter irony intended to hurt another, humor, or produce obligatory laughter.

SCORE

0 Code 0 if no sarcasm is demonstrated during the segment.

1 **a)** Spontaneous genuine shared laughter generated by a sarcastic comment by the couple member you're rating.

2 **a)** Individual laughing due to own sarcastic statement, not a direct attempt to make a joke. Laughter is an inappropriate response to a comment that the other clearly does not consider funny.

b) Nervous or obligatory laughter in response to other's sarcastic comment which is not shared laughing.

3 **a)** **tone:** sarcastic **content:** moderate to high annoyance

Sarcastic comment.

E.g., *Oh, I'm sure you could do much better.*

4 **a)** **tone:** biting sarcasm **content:** extreme annoyance

Mean or cruel sarcasm (resulting from frustration) seen as a direct attack on the other.

PERSUADING

******* Score based on quality of verbalizations and voice tone. Persuading is not coded once you find out that both partners share the same view. If you do not know the partner's it is coded.

QUALITIES MEASURED: influencing, convincing, coaxing.

SCORE

0 Code 0 if individual does not attempt to persuade during the segment.

1 **a) tone**: mild **content:** explanation
Relating own perspective or opinion in a matter of fact manner.
Eg., *I think we both are competitive.*

2 **a) tone:** mild/medium **content**: imploring
Asking other to see own view-point in a mild or medium imploring tone.
Repeating ones view point more than once OR trying to interrupt partner in order to make a point.
Eg., *Don't you see what I mean?*

b) tone: mild/medium **content:** comparative/competitive clarification
Directly comparing own perspective to that of the other in an attempt to establish superiority of own perspective. Supplying evidence for own position through examples or self-disclosure.
Eg., *Three kids? I was thinking four or five would be better?*

3 **a) tone:** medium **content:** convincing/lecturing
More emphatic attempt to make the other agree with own perspective. (finger pointing)
E.g., *You call me names so that's why I call you names.*

b) tone: medium **content:** commanding/ordering
Directly ordering the other to perform a task or take a position.
E.g., *You hold the card and read the questions; I'll do the talking.*

c) tone: medium content: imploring
Asking partner to be in similar situation. Role-playing.
E.g., *"How would you feel if I went over to Stephanie's party and slept in her bed?"*

4 **a) tone:** high **content:** demanding
Demanding that other agree with own perspective in a intense, emotional tone. E.g., *Just listen to me. You have to understand what I'm saying*. I'm never going to believe you.

b) tone: high **content:** pleading
Begging or pleading with other to accept own point of view in a high em otional tone.
E.g., *Please, can you just agree with me for once.*

c) Threatening or giving an ultimatum for agreement

GIVING IN

******* Score based on quality of verbalizations and voice tone.

QUALITIES MEASURED: perspective taking; surrendering, giving in

*The code for giving in is unique in that it is somewhat dependent on the behavior of the partner. There must be an opinion or position that the individual is being persuaded to (i.e., the partner is trying to persuade). Also there is the assumption that the two partners are starting with different opinions and the ratee is moving towards agreement with the partner. If both participants start with the same position, support is the more likely code.

SCORE

0 Code 0 if individual is not giving in or taking the other's perspective at all during the segm ent.

1 **a) tone**: neutral/mild positive **content**: somewhat surrendering
Not full acceptance of other's view.
E.g., *Yes, but what about the ….*

2 **a) tone:** mild positive **content**: acknowledging; backing off
Unsuccessful attempt to interrupt partner and argue against partner's point of view. Allowing partner to successfully interrupt and continue with their point of view while abandoning their own. E.g., *That is n…*

b) Minimizing ones point
Yeah, this is my issue but its not a big deal.

3 **a) tone:** neutral/negative **content:** acknowledging; affirming
Somewhat genuine acknowledgment of the other's perspective with a surrendering or conceding quality. Continuously allowing partner to successfully interrupt while abandoning their own point of view.
E.g., *Yeah-I guess I can see that.*

4 **a) tone**: negative **content:** surrendering
Surrendering completely or changing ones behavior for their partner, or apologizing. E.g., *Alright-whatever you say.*

b) tone: none **content:** surrendering/withdrawing
Have opportunity to respond to partner's point but remains silent or ignoring partner's conflictual comments

UNCOMFORTABLE

******* Score based on quality of verbalizations and voice tone, gestures, behaviors, and facial expressions. *Code only uncomfortable with the partner or topic of conversation-Do not code uncomfortable with the task or the situation.*

QUALITIES MEASURED: Withdrawing; Disengaging; changing topic; fidgeting

SCORE

0 Code 0 if not uncomfortable during the segment.

2 **a) tone:** mild/subtle **content:**

Just one of these following behaviors.

Behavioral example: leaning away from each other, brief glances away within the context of communication.

b) tone: medium **content:**

Change of voice, one or two word responses, silence due to conversation topic (not from lack of something to say). Combination of behaviors.

Behavioral example: loss of eye contact for extended amount of time, crossing arms, nervous laughter

4 **a) tone:** medium/high **content:**

Disengaging from conversation or changing subject. Making a joke or making light of the problem.

Behavioral example: no eye contact

b) tone: high **content:**

Extremely uncomfortable with partner, observing a high number of behaviors below:

Behavioral examples: impeding speech, excessive fidgeting, no eye contact, red face, or profusely sweating.

c) tone: high **content:**

Person says not talking about this anymore or giving a glaring stare with pursed lips. E.g., "I don't want to talk about this."

FRUSTRATION

******* Score based on quality of verbalizations and voice tone, gestures, behaviors, and facial expressions. *Code only frustration with the partner or topic of conversation-Do not code frustration with the task or the situation.*

QUALITIES MEASURED: discouragement, misunderstanding, obstruction of goal/desires

SCORE

0 Code 0 if no frustration is demonstrated during the segment.

2 **a) tone:** mild/subtle **content:** misunderstanding, disappointment, or annoyance

Demonstration of dissatisfaction or sense of being misunderstood in a mild tone or expression of same with subtle gesture, behaviors, or expressions. Like having to repeat what you've said. Or could be based simply on tone. Eg., *Really? I'm surprised you'd say that. I don't understand what you're trying to say.* Behavioral example: rolling eyes, shaking head lightly turning away, grimace

b) tone: medium **content:** more emphatic misunderstanding, disappointment, or annoyance

Behavioral example: *throwing up hands, rolling eyes, big sigh but continuing on with the conversation, stuttering.*

c) tone: medium **content:** interruption

Either continuous interruption of the other (not allowing partner to complete thought or opinion) or a frustrated response to being interrupted. Do not code Frustration during periods of excited escalation (e.g., back and forth interruptions as both partners build an idea, finish each others sentences, etc.). Eg., *Would you let me talk?*

4 **a) tone:** high **content:** misunderstanding, disappointment, or annoyance

E.g., *How many times do I have to tell you! You're not listening to me!*

Behavioral example: Big obvious gestures-combination of facial expression (e.g., raised eyes) and body language (e.g., throwing up arms or crossing arms)

b) tone: very hot **content:** misunderstanding, disappointment, or annoyance

Extreme expression of frustration with very high intensity of voice tone, raised voice, or very obvious gestures or expressions.

c) tone: medium/high **content:** interruption, change of subject, and/or withdrawing

Abrupt change of subject that reflects discouragement or frustration with current topic. Or completely withdrawing from the subject.

E.g., *I don't want to talk about this anymore. What's the next question?*

APPENDIX B-6

Items from the Relationship Satisfaction Scale

On a scale of 1 (*strongly disagree*) to 6 (*strongly agree*) please rate the following statements as they relate to your current romantic partner.

Relationship Satisfaction

1. In general, I am satisfied with our relationship.
2. Compared to other people's relationships ours is pretty good.
3. I often wish I hadn't gotten into this relationship.*
4. Our relationship has met my best expectations.
5. Our relationship is just about the best relationship I could have hoped to have with any body.

** reverse coded*

VITA

Joseph Warren Dickson was born on November 8, 1977 in Kingsport, Tennessee. He attended Andrew Johnson Elementary and Ross N. Robinson Middle School before graduating from Dobyns-Bennett High School in June 1996. He pursued his Bachelor of Arts degree in psychology at the University of Tennessee at Knoxville and worked as a research assistant in the Study of Tennessee Adolescent Romantic Relationships (STARR) with Dr. Deborah Welsh. After graduating in May 2000, he continued taking graduate classes at Knoxville while completing his sports eligibility, competing in Track and Cross-Country. This turned out to be the pinnacle of his running career with his contributions to the track team winning the 2001 Southeastern Conference and NCAA National Track & Field Championships. In 2002 Joe was accepted into the Ph.D. program for clinical psychology at the University of Tennessee and continued working with Dr. Deborah Welsh and the STARR Project. He completed his clinical psychology internship in June 2007 through Baylor College of Medicine within the Department of Psychiatry by working at the Menninger Clinic. He recently completed a postdoctoral training program at the Menninger Clinic and is currently pursuing a fulltime faculty position with Baylor College of Medicine.