



Full Length Article

The young adult love lives of happy teenagers: The role of adolescent affect in adult romantic relationship functioning ^{☆,☆☆}

Jessica Kansky ^{*}, Joseph P. Allen, Ed Diener

University of Virginia, United States



ARTICLE INFO

Article history:

Received 20 December 2018
 Revised 8 March 2019
 Accepted 9 March 2019
 Available online 18 March 2019

Keywords:

Romantic relationships
 Affect
 Adolescence
 Relationship quality

ABSTRACT

This study assessed early adolescent positive and negative affect as long-term predictors of romantic conflict, anxious and avoidant attachment, romantic and social competence, and relationship satisfaction in adulthood utilizing a longitudinal, multi-informant study of 166 participants assessed annually at ages 14–17, and again at ages 23–25. Positive affect in adolescence predicted greater self-rated social competence during late adolescence and greater self-rated romantic competence and less partner-reported hostile conflict almost a decade later. Negative affect predicted lower social and romantic competence. Results generally remained significant after controlling for personality traits, providing greater support for the hypothesis that affect has a robust, direct relation to romantic development over time.

© 2019 Elsevier Inc. All rights reserved.

1. Introduction

Establishing and maintaining romantic relationships in young adulthood is seen as a critical developmental task of this period (Arnett, 2000; Barry, Madsen, Nelson, Carroll, & Badger, 2009; Roisman, Masten, Coatsworth, & Tellegen, 2004). Although social relationships are important for well-being across the lifespan, romantic relationships become increasingly salient to identity and well-being during emerging adulthood, often surpassing the relative importance of tasks in career, financial, and friendship domains (Giordano, Manning, Longmore, & Flanigan, 2009; Meeus, Branje, van der Valk, & de Wied, 2007; Schulenberg, Bryant, & O'Malley, 2004; Seiffge-Krenke, 2003). It is unsurprising that successful, healthy relationships are linked to greater overall well-being whereas poor relationships are linked to poor mental health, well-being, and adjustment during this time (Braithwaite, Delevi, & Fincham, 2010; Hefner & Eisenberg, 2009; Kuwabara,

Van Voorhees, Gollan, & Alexander, 2007). Positive early social experiences with family and peers provide self-confidence in navigating romantic relationships and are linked to future romantic relationship quality (Allen, Narr, Kansky, & Szewedo, 2019; Collins, Henninghausen, Schmit, & Sroufe, 1997; Connolly, Furman, & Konarski, 2000; Gest, Sesma, Masten, & Tellegen, 2006). However, beyond identification of the importance of earlier social experiences, adolescent precursors of healthy young adult romantic relationships have received scant attention.

It seems quite likely that good relationships predict the presence of positive affect; however, far less research has considered the reverse relation – whether affect may serve a predictive role in the success or failure of close relationships. Several lines of argument suggest this likelihood. Positive affect has been identified as a building block of positive relationships because it encourages individuals to initiate, solidify, and maintain long-term social relationships (see Moore & Diener, *in press* for a review). Subjective well-being is strongly associated with nonmarital romantic relationship quality (Braithwaite et al., 2010; Campbell, Simpson, Boldry, & Kashy, 2005; Demir, 2008), and marital status (Diener, Gohm, Suh, & Oishi, 2000; Dush & Amato, 2005; Luhmann, Lucas, Eid, & Diener, 2013; Stutzer & Frey, 2006) such that those who report greater romantic satisfaction and high quality relationships also report less negative affect and more positive affect and life satisfaction. Positive affect helps boost close ties by buffering against negative experiences, increasing relationship satisfaction, and increasing healthy relationship qualities such as intimacy (Fischer & Manstead, 2008; Lambert, Fincham, Gwinn, & Ajayi, 2011; Meyer, Jones, Rorer, & Maxwell, 2015), while negative affect

^{*} This manuscript is supported by the following grants: NIH/NICHD R01-HD058305; NIH/NICHD R01-MH58066.

^{**} We would like to describe each author's contributions to the submitted manuscript: JK conceived of the analyses for the study and assisted with its design, performed the statistical analyses, participated in the interpretation of the data, and drafted the manuscript. JA conceived of the overall study and participated in its design and coordination. JA also participated in the interpretation of the data and helped to draft the manuscript. ED assisted in the interpretation of the data and helped to draft the manuscript. All authors read and approved the final manuscript.

^{*} Corresponding author at: Department of Psychology, University of Virginia, Gilmer Hall, PO Box 400400, Charlottesville, VA 22904-4400, United States.

E-mail addresses: jk3gm@virginia.edu (J. Kansky), allen@virginia.edu (J.P. Allen), ediener@illinois.edu (E. Diener).

is associated with lower relationship satisfaction. Yet, the majority of longitudinal studies assessing affect to romantic outcomes have focused on adult married samples (i.e., Levenson & Gottman, 1985) neglecting the experiences of unmarried, young adults.

Prior research on affect and relationship functioning has defined affect as a stable personality trait, rather than a state emotion. High trait emotionality is linked to poor romantic outcomes in married couples (Karney & Bradbury, 1995), whereas positive emotions as a stable personality trait during adolescence predicted romantic relationship quality into adulthood (Robins, Caspi, & Moffitt, 2002). However, global, trait affect or recalled affect may be prone to biased recall (Cutler, Larsen, & Bruce, 1996; Lucas, 2000; Walker, Skowronski, & Thompson, 2003) and may be reflective of more global personality traits rather than affect. Our measure of affect is instead rooted in current state emotion, consistent with prior research indicating that current state affect is a reliable predictor of psychosocial outcomes and remains moderately stable over time (Crawford & Henry, 2010; Lucas, 2000; Meyer et al., 2015; Watson & Walker, 1996). Assessing current affect reduces the potential for recall bias and directly addresses current feelings rather than broader personality traits.

Prior research has identified extraversion and emotional stability as the personality traits with the strongest affective components, compared to the other personality traits of agreeableness, conscientiousness, and openness (DeNeve & Cooper, 1998). Previous studies have found extraversion to be most similar to positive affective states while neuroticism, or lack of emotional stability, is most highly correlated with negative affect (Larsen & Ketelaar, 1991; Rusting & Larsen, 1997; Schimmack & Diener, 2003). When both personality and affect have been included within the same analyses as predictors of later social behaviors, results suggest personality does add significant value (Burger & Caldwell, 2000). To our knowledge, there have not been studies directly assessing relative value of these personality traits versus affect in predicting romantic outcomes. However, because personality traits and affective states are likely to be distinct predictors of behaviors and because affect may begin impacting close relationships during the socially-dominated adolescent years, there is a need to directly assess adolescent state affect as a driver of romantic development.

1.1. The importance of affect for social relationships in adolescence

Positive and negative affect experienced during adolescence may be especially important for relationship development, as adolescence is a time of social exploration during which relationships and social competence become increasingly central to identity (Collins & Laursen, 2000; Furman & Buhrmester, 1985; Zarrett & Eccles, 2006). Positive affect during adolescence is related to a range of social outcomes including less frequent conflict and greater peer-rated friendship attachment, even after controlling for several confounds including earlier relationship quality, income, and gender (Kansky, Allen, & Diener, 2016). Beginning in adolescence, individuals' emotions may guide interactions with others at the same time relationships become increasingly salient to well-being.

Fredrickson's broaden-and-build theory, posits that positive affect allows individuals to invest in their close relationships so that they can rely on strong social support in future negative circumstances, while negative affect encourages individuals to focus on current stressors and problems, rather than build their resources for the future (Fredrickson, 2001; Lyubomirsky, King, & Diener, 2005). This theory further suggests a likely link of adolescent affect to long-term outcomes. Not only do those with negative affect lack the drive to build social connections, but their existing relationships may suffer due to the potential neglect and negativity as well. Negative affect may decrease the likelihood of forming relationships with positive qualities and may result in lower rela-

tionship satisfaction. On the other hand, positive affect encourages individuals to invest in their relationships, which likely promotes and strengthens positive qualities of these relationships. Importantly, negative and positive affect appear linked to different aspects of relationship quality and are considered to be separate affective dimensions, rather than opposite ends of a general affect trait (Diener & Emmons, 1984; Huppert & Whittington, 2003).

1.2. Affect and young adult romantic relationship functioning

Romantic relationship success during young adulthood has been defined in many ways. For the purposes of this study, we focus on specific relationship characteristics (i.e., romantic conflict, insecure attachment, romantic competence, and relationship satisfaction) as markers of healthy versus unhealthy relationship functioning. Overwhelmingly, the most cited negative romantic quality is hostile conflict. In a married sample, negative affect was significantly related to poor conflict management strategies (Krokoff, 1987). Gottman (1994) found that stable, high quality marriages, are characterized by more positive interactions to negative even while resolving conflict. Negative affect was related to individual's recalled amount of conflict in past romantic relationships as well (Berry & Willingham, 1997). Prior research on close friendships has identified positive and negative affect as independent predictors of amount of conflict and irritation in friendships. These results suggest that happy people tend to report less negative conflict and are also better able to manage conflict when it arises, while those with greater negative affect tend to report more frequent conflict and poor coping strategies. Whether affect is a cause or consequence of hostile conflict within romantic relationships has yet to be disentangled.

A second way in which affect is likely impacting relationship functioning is through its association with attachment behaviors (Banse, 2004; Cobb, Davila, & Bradbury, 2001; Creasey, Kershaw, & Boston, 1999; Li & Chan, 2012). Attachment behaviors along two dimensions (anxiety and avoidance) have been identified, with low levels on both dimensions representing secure attachment (Brennan, Clark, & Shaver, 1998). Insecure attachment behaviors have been associated with fewer positive emotions, greater negative emotions, difficulties regulating affect and managing conflict, and poorer relationship quality (Collins & Read, 1990; Kobak & Sceery, 1988; Meyer et al., 2015). Specifically, attachment theory posits that secure attachment is associated with healthy affect regulation (Mikulincer, Shaver, & Pereg, 2003). Indeed, working models of attachment contain affective components (Collins & Read, 1994) and experimental studies have linked primed insecure attachment styles to negative affect whereas primed secure attachment styles were linked to greater positive affect (Rowe & Carnelley, 2003).

Affect and emotion regulation have also been strongly tied to attachment behaviors that impact friend and romantic relationships during adolescence and into adulthood (Cassidy, 1994). Thus, affect during adolescence may play a critical role in developing attachment behaviors that are likely to impact later relationship outcomes. Importantly, prior research has indicated that individuals may be unreliable in reporting complex, cognitive processes such as attachment processes (Main & Goldwyn, 1985; Nisbett & Wilson, 1977) highlighting the need to include partner's perceptions as well. Affect is likely to be linked to insecure attachment behaviors, but the role of affect in predicting such behaviors over time has not been fully explored.

Finally, affect is likely linked to young adult romantic competence given the centrality of affect in the experience of close relationships. Affect likely contributes to the development of competence in friendships during adolescence and romantic relationships in adulthood, in accord with the developmental stage theory of relationship importance (Roisman et al., 2004). In adult-

hood, competence specifically related to romantic abilities (i.e., romantic competence) is linked to greater well-being and more satisfied relationships (Montgomery, 2005; Reis, Collins, & Berscheid, 2000). Yet, whether affect predicts romantic competence independently of general social competence has not been directly assessed. Relatedly, romantic competence has been proposed as a factor driving relationship satisfaction (Davila et al., 2017; Davis & Oathout, 1987). There is a wealth of research indicating the affect is related to relationship satisfaction. Specifically, those with high positive affect are more likely to report higher relationship satisfaction, while those with negative affect report lower satisfaction (Drydal, Roysamb, Nes, & Vitterso, 2011; Dush & Amato, 2005; Love & Holder, 2015). While there is burgeoning evidence suggesting that affect may predict future relationship satisfaction (i.e., Luhmann et al., 2013), most studies are limited to adult populations and often times, affect is first measured when already in a serious, committed relationship. However, earlier affect, before one enters a relationship, is likely to influence eventual satisfaction, yet this has never been directly assessed.

Taken together, prior research suggests that affect likely facilitates relationship experiences and behaviors that influence future relationship functioning, whether in terms of attachment behaviors that involve understanding and responding to another's distress while managing one's own, ability to maintain a relationship through conflict management, comfort in initiating a romantic relationship, and relationship satisfaction. To date, the notion that affect might ultimately predict better relationship functioning in the longer term has received scant empirical attention despite its concurrent link to relationship functioning across the lifespan. If affect is in fact a driver of later relationship functioning, findings may inform future interventions or relationship education programs to highlight the role of affect in couple interactions.

2. Overview of the research and hypotheses

This study examines the role of affect during adolescence as a predictor of romantic relationship functioning during the transition to adulthood. It uses self-reports and romantic partner reports to examine the implications of positive and negative affect on romantic functioning in young adulthood using a diverse community sample followed from the ages of 14–26. We examined the following hypotheses:

Hypothesis 1. Early adolescent positive affect will predict lower levels of self and partner reported hostile relationship conflict, lower levels of the target's insecure attachment (anxious and avoidant) as reported by the target and his/her partner, and greater self-reported romantic competence and romantic relationship satisfaction in adulthood.

Hypothesis 2. Early adolescent negative affect will predict greater levels of self and partner reported hostile relationship conflict, greater levels of the target's insecure attachment (anxious and avoidant) as reported by the target and his/her partner, and less self-reported romantic competence and romantic relationship satisfaction in adulthood.

Hypotheses 3. When examined simultaneously, positive and negative affect will each uniquely predict romantic relationship outcomes.

Hypothesis 4. Positive and negative affect will remain a unique predictor of romantic outcomes after controlling for the personal factors of extraversion and emotional stability.

3. Method

3.1. Participants

The data are taken from a larger longitudinal study on adolescent development utilizing a multi-method approach (observed behavior, sociometric data, physiological data, and reports by self, peer, parent, and romantic partner).¹ Participants were initially recruited from the 7th and 8th grades of a public middle school in the Southeastern United States with both suburban and urban populations. Students were first recruited through an initial mailing to all parents of students in the school. Those who were interested in the study were contacted by telephone. Informed consent from the parents and informed assent from all participants were obtained before each interview session.

Participants include 166 individuals (80 male, 86 female) followed over an 11-year period from approximately ages 14 ($M = 14.27$; $SD = 0.77$) to 25. The community sample was diverse in terms of race, ethnicity, and socioeconomic status: 58% of adolescents identified as Caucasian, 29% as African Americans, 8% as mixed race/ethnicity, and 5% as other. Adolescents' parents reported a median family income around \$50,000.

Follow-up data was obtained for participants annually during late-adolescence at mean age 16 ($M = 16.36$; $SD = 0.87$), 17 ($M = 17.32$; $SD = 0.88$), and 18 ($M = 18.38$; $SD = 1.04$). Participants also completed follow-up assessments in adulthood at ages 24 ($M = 23.78$; $SD = 0.97$), 25 ($M = 24.65$; $SD = 0.96$), and 26 ($M = 25.69$; $SD = 0.99$). If participants reported being in a romantic relationship lasting 3 months or longer between the ages of 23 and 25, they were asked to provide contact information for their romantic partner. A similar duration criterion has been used in prior research with young couples (Madsen & Collins, 2011; Connolly & Johnson, 1996; Hand & Furman, 2009; Collins, Welsh, & Furman, 2009). Partners were contacted via phone to consent for the study as well. Eligible participants and their romantic partners completed assessments only once between the ages 24 and 26. Therefore, in addition to self-report data, romantic partners provided data at follow-up at the average age of 25 ($M = 24.89$; $SD = 4.15$). The average relationship duration of those who participated is 2 and a half years ($M = 2.72$, $SD = 2.37$). Additionally, of those participants in eligible relationships, 42% reported currently living together, 22% had children together, 13% were engaged, and 8% were married.

3.2. Attrition analyses

Attrition analyses indicated that those participants who did not complete all assessments across time points (i.e., early adolescence and late adolescence and adulthood) did not differ on any measures of interest. We also completed attrition analyses for participants who did not complete the late adolescent assessments in comparison to those who did and found no significant differences in measures of interest. In addition, regression analyses assessed whether affect predicted relationship status in adulthood. Neither positive nor negative affect predicted whether individuals were in relationships or single in young adulthood.

Of the 166 participants who provided data in early adolescence at age 14, data were available for 160 participants at ages 16–18 and 159 participants at ages 23–25. For a subset of the 159 participants at ages 23–25, a total of 103 participants endorsed being in a romantic relationship of 3 months or longer and participated in the couple-specific follow-up. 96 participants had romantic partners who completed questionnaires in adulthood at ages 23–25. Regres-

¹ Data for this paper will be available upon request. Because the data comes from a larger, ongoing longitudinal study we do not publish our dataset online at this time. We did not preregister this specific set of analyses.

sion analyses indicated that positive and negative affect did not predict relationship status at ages 23–25 ($\beta = 0.14$, $p = .06$; $\beta = -.08$, $p = .29$ respectively). In addition, 7 target participants had a romantic partner at ages 23–25 but their partner did not participate. Attrition analyses indicated that there were no significant differences between those who had a partner who participated compared to those who had a partner who did not participate.

In order to best address any potential biases due to missing data within waves or attrition in longitudinal analyses, Full Information Maximum Likelihood (FIML) methods were utilized for all analyses, including all variables that were linked to future missing data (i.e., where data were not completely missing at random). These procedures have been found to provide the least biased estimates when all available data are used for longitudinal analyses (Arbuckle, 1996). Thus, all analyses reflect the entire sample; specifically this means the full sample of 166 adolescents who provided data at age 14 was used for all analyses. Using the maximum sample provides the best possible estimates of variances and covariances in measures of interest and least chance for biases due to missing data. No data is estimated or imputed in this procedure; rather, it simply accounts and corrects for biases due to missing data. Alternative longitudinal analyses using only those without any missing data yielded results that were substantially identical to those reported below.

3.3. Measures

Affect (Early Adolescence (Age 14); Self Report). The Affective Arousal Scale (Porter, 2000) was used to assess adolescent positive and negative affect at age 14. This scale is composed of 7 self-report items that assess a range of feelings. The measure asks, “How ___ are you right now?” with different emotions completing the sentence. Participants respond on a 100 mm visual analog scale ranging from “Not at All” to “Very.” Positive affect is a sum score of happy and cheerful while negative affect is a sum score of sad, worried, angry, upset, and tense. Participants completed the Affective Arousal Scale at age 14. The internal consistency is considered good for both positive affect (Cronbach’s $\alpha = 0.73$) and negative affect (Cronbach’s $\alpha = 0.80$).

Social Competence (Late Adolescence (Averaged Over Ages 16–18); Self Report). Social competence was assessed annually at ages 16, 17, and 18 using the Self-Perception Profile for Adolescents (Harter, 1988). This measure assesses specific domains of competence including scholastic, athletic, physical appearance, job competence, behavioral conduct, and social competence. We created an overall social competence score by combining the three 4-item subscales of close friendship, romantic appeal, and social competence. Higher scores reflect greater levels of perceived competence. We averaged the social competence scores across ages 16, 17, and 18 to provide a measure of overall perceived social competence in late adolescence. The internal consistency for this aggregated competence measure is considered good (Cronbach’s $\alpha = 0.84$).

Romantic Competence (Adulthood (Averaged Over Ages 23–25); Self Report). Romantic competence was assessed at ages 23, 24, and 25 using the 4-item Intimate Competence subscale of the Adult Self-Perception profile (Harter, 1995). Items assess competence in establishing intimate relationships including items capturing the formation and maintenance of romantic relationships. Higher scores reflect greater levels of perceived romantic competence. The average romantic competence score across ages 23–25 provides a measure of romantic competence in young adulthood. The internal consistency for this aggregated romantic competence measure is considered good (Cronbach’s $\alpha = .88$).

Relationship Satisfaction (Age 23–25); Self Report). Once during the ages of 23–25, participants completed the Relationship Assessment Scale (Hendrick, Dicke, & Hendrick, 1998) about their

current romantic relationship. This measure includes 7 items that assess regrets about the relationship (reverse scored), general satisfaction, whether expectations have been met, how well the relationship compares to others, how well the partner meets one’s needs, love for one’s partner, and problems in the relationship (reverse scored). Higher scores reflect greater satisfaction within the relationship. The internal consistency for adult relationship satisfaction is considered good (Cronbach’s $\alpha = 0.89$).

Romantic Conflict (Adulthood (Age 23–25); Self and Romantic Partner Report). Romantic conflict was assessed using both self and romantic partner report on two measures: the 3-item conflict subscale of the Network of Relationships Inventory (Furman & Buhrmester, 1985) and the 27-item negative conflict subscale of the Conflict in Relationships Scale (CIR; Wolfe, Reitzel-Jaffe, Gough, & Wekerle, 1994). Participants and romantic partners completed these assessments once between ages 23 and 25. The Network of Relationships Inventory is a 45-item scale that measures differences in qualities among close relationships. The Conflict in Relationships Scale is an 80-item measure created to identify emotional, physical, and sexual abusive behaviors of both the respondent and the respondent’s partner. Target participants and romantic partners completed both questionnaires regarding their current relationship. A standardized average of the conflict subscale of the Network of Relationships Inventory and the negative conflict subscale of the Network of Relationships Inventory serves as an overall measure of romantic conflict in adulthood. Internal consistency for the adult conflict aggregate score is considered good for both self-report (Cronbach’s $\alpha = 0.79$) and partner report (Cronbach’s $\alpha = 0.72$).

Anxious and Avoidant Attachment (Adulthood (Age 23–25); Self and Romantic Partner Report). Both dimensions of attachment of the target participant were measured using self and romantic partner report on the 45-item Behavioral Systems Questionnaire (Furman & Wehner, 1994), which assess attachment styles with their current partner. The 5-item Preoccupied Attachment subscale includes behaviors such as over dependence and neediness. Higher scores indicate greater endorsement of anxious attachment behaviors. Participants and romantic partners completed these assessments once between ages 23 and 25. The internal consistency for the adult anxious attachment score is considered good for both self-report (Cronbach’s $\alpha = 0.71$) and partner report (Cronbach’s $\alpha = 0.77$).

The 5-item Dismissing Attachment subscale includes behaviors such as avoiding conflict and intimacy. Higher scores indicate greater endorsement of avoidant attachment behaviors. The internal consistency for the adult avoidant attachment score is considered good for both self-report (Cronbach’s $\alpha = 0.80$) and partner report (Cronbach’s $\alpha = 0.76$).

Personality (Adulthood (Age 23); Self Report). At age 23, participants completed the International Personality Inventory Pool to assess key facets of personality (Goldberg et al., 2006). This measure consists of 50-items across the five personality traits of extraversion, agreeableness, conscientiousness, emotional stability, and imagination or intellect. Items are scores on a 5-point Likert scale where 1 = “Very inaccurate” to 5 = “Very accurate” such that higher scores indicate greater endorsement of each personality trait. The extraversion and emotional stability/neuroticism subscales are each composed of 10-items and have good internal consistencies (Cronbach’s $\alpha = 0.84$ and 0.89 , respectively).

4. Results

4.1. Preliminary analyses

Means and standard deviations for all variables examined in the study are presented in Table 1. T-tests were conducted to examine

potential gender differences in all key variables of interest. Results indicate that females report greater emotional stability than males at age 24 ($t(155) = 3.24, p = .0015$). Because we did not find significant gender differences initially, we present all analyses without controlling for gender. We then also conducted supplemental analyses in which gender was included as a covariate. In most cases, both sets of analyses are nearly identical. In addition, we conducted supplemental analyses in which relationship duration was included as a covariate. Controlling for relationship duration did not change any of our significant findings. For descriptive purposes, Table 1 also presents the zero-order correlations among the key variables of interest in the study.

4.2. Primary analyses

For the primary analyses presented below, we focus on results that are significant at the $p < .01$ level given the large number of analyses and tests conducted for this study. We will refer to the results that are significant at the $p < .05$ level as marginally significant for the remainder of the discussion below.

Hypothesis 1: Early adolescent positive affect will predict lower levels of self and partner reported hostile relationship conflict, lower levels of target’s insecure attachment (anxious

and avoidant) as reported by the target and his/her partner, and greater self-reported romantic competence in adulthood.

We examined whether adolescent positive affect predicted overall levels of romantic relationship outcomes at age 25 in adulthood using regression analyses. Results as shown in Table 2, reveal that positive affect is related to greater social competence ($\beta = 0.39, p < .001$), greater romantic competence ($\beta = 0.28, p < .001$), and less partner-reported romantic conflict ($\beta = -0.27, p = .01$). Positive affect is also marginally related to less self-reported anxious attachment ($\beta = -0.17, p = .04$). Positive affect was not significantly related to self-reported romantic conflict, to self- or partner-reported avoidant attachment of the target participant, to partner-reported anxious attachment behaviors of the target participant, or to relationship satisfaction.

Hypothesis 2: Early adolescent negative affect will predict greater levels of self and partner reported hostile relationship conflict, greater levels of the target’s insecure attachment (anxious and avoidant) as reported by the target and his/her partner, and less self-reported romantic competence in adulthood. We next examined whether negative affect at age 14 predicted overall levels of adulthood romantic relationship outcomes. The results of linear regression analyses are reported in Table 2. Negative affect was significantly related to less social competence ($\beta = -0.37,$

Table 1
Descriptive statistics and correlations of all key variables of interest.

	Mean	SD	2	3	4	5	6	7	8	9	10	11	12	13
1. Positive Affect (Self; Age 14)	6.81	2.11	-.21**	.40***	.28***	.09	-.18	-.17*	-.05	-.24*	-.18	.11	.23**	.32***
2. Negative Affect (Self; Age 14)	1.10	1.31	-	-.37***	-.29***	.03	-.01	.01	.10	-.03	.14	-.09	-.21**	-.13
3. Social Competence (Self; Age 16–18)	39.99	5.82	-	-	.54***	.22*	-.25*	-.20*	-.21**	-.16	-.16	.18	.37***	.31***
4. Romantic Competence (Self; Age 23–25)	12.62	2.54	-	-	-	.46***	-.26**	-.15	-.32***	-.16	-.17	.14	.48***	.32***
5. Relationship Satisfaction (Self; Age 23–25)	30.39	4.34	-	-	-	-	-.60***	-.24*	-.24*	-.45***	-.13	.03	.21*	.13
6. Romantic Conflict (Self; Age 23–25)	0	0.91	-	-	-	-	-	.29**	.28**	.65***	.28**	.10	-.08	-.16
7. Preoccupied/Anxious Attachment (Self; Age 23–25)	11.91	3.63	-	-	-	-	-	-	.36***	.29**	.16	.04	-.22**	-.22**
8. Dismissing/Avoidant Attachment (Self; Age 23–25)	11.13	3.76	-	-	-	-	-	-	-	.14	.11	.10	-.29***	.01
9. Romantic Conflict (Partner; Age 23–25)	0	0.88	-	-	-	-	-	-	-	-	.27**	.11	.02	-.06
10. Preoccupied/Anxious Attachment (Partner; Age 23–25)	14.00	3.87	-	-	-	-	-	-	-	-	-	.09	-.07	-.13
11. Dismissing/Avoidant Attachment (Partner; Age 23–25)	10.47	3.34	-	-	-	-	-	-	-	-	-	-	.30**	.13
12. Extraversion (Self; Age 23)	34.97	7.45	-	-	-	-	-	-	-	-	-	-	-	.31***
13. Emotional Stability (Self; Age 23)	34.09	8.75	-	-	-	-	-	-	-	-	-	-	-	-

Note. * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 2
Regression analysis predicting adult social and romantic outcomes from adolescent positive and negative affect.

Outcome	Reporter	Age	β	p-value
<i>Positive affect</i>				
Social Competence	Self	16–18	0.39	<.0001
Romantic Competence	Self	23–25	0.28	<.0001
Relationship Satisfaction	Self	23–25	0.11	.32
Romantic Conflict	Self	23–25	0.20	.06
Anxious Attachment	Self	23–25	-0.17	.03
Avoidant Attachment	Self	23–25	-0.05	.56
Romantic Conflict	Partner	23–25	-0.27	.01
Anxious Attachment	Partner	23–25	-0.22	.06
Avoidant Attachment	Partner	23–25	0.13	.30
<i>Negative affect</i>				
Social Competence	Self	16–18	-0.37	<.0001
Romantic Competence	Self	23–25	-0.28	<.0001
Relationship Satisfaction	Self	23–25	0.03	.79
Romantic Conflict	Self	23–25	0.01	.99
Anxious Attachment	Self	23–25	0.01	.86
Avoidant Attachment	Self	23–25	0.11	.22
Romantic Conflict	Partner	23–25	-0.03	.80
Anxious Attachment	Partner	23–25	0.16	.16
Avoidant Attachment	Partner	23–25	-0.10	.41

$p < .001$) and less romantic competence ($\beta = -0.28, p < .001$) as shown in Table 2. Negative affect was not significantly related to self- or partner-reported conflict, anxious attachment, or avoidant attachment, or to self-reported relationship satisfaction.

Hypothesis 3: When examined simultaneously, positive and negative affect will each uniquely predict romantic relationship outcomes. We examined whether simultaneously including both positive and negative affect as predictors uniquely predicts overall levels of romantic relationship outcomes in adulthood. In combined models, regression analyses revealed that positive affect continued to predict relatively greater social competence ($\beta = 0.33, p < .001$) and negative affect continued to predict relatively less romantic competence ($\beta = -0.31, p < .001$). In combined models, positive affect continued to predict relatively greater romantic competence ($\beta = 0.23, p = .002$) and negative affect continued to predict relatively less romantic competence ($\beta = -0.24, p = .001$). In combined models, positive affect continued to predict relatively less partner-reported hostile conflict ($\beta = -0.29, p = .008$) while negative affect remained not significant ($\beta = -0.10, p = .38$). In combined models, positive affect also continued to marginally predict relatively less self-reported anxious attachment behaviors ($\beta = -0.18, p = .04$) while negative affect remained not significant ($\beta = -0.02, p = .79$). Finally, when included in a combined model, positive affect marginally predicted relatively less self-reported hostile conflict ($\beta = -0.22, p = .05$) while negative affect remained not significant ($\beta = -0.05, p = .66$). This suggests positive affect continues to predict many romantic outcomes even after accounting for the role of negative affect. Results mostly support the unique roles of positive and negative affect as predictors of romantic relationship functioning.

Hypothesis 4: Positive and negative affect will remain a unique predictor of romantic outcomes after controlling for relevant global personality factors. Regression analyses included personality as a potential confounding variable regarding the relationship between early adolescent affect and young adult romantic outcomes. To test this possibility, extraversion was added to analyses assessing positive affect, and emotional stability was added to analyses assessing negative affect. Controlling for extraversion, positive affect continued to predict social competence ($\beta = 0.33, p < .0001$), romantic competence ($\beta = 0.19, p = .005$), and partner-reported conflict ($\beta = -0.30, p = .008$), but not self-reported anxious attachment ($\beta = -0.14, p = .09$). Controlling for emotional stability, negative affect continued to predict social competence ($\beta = -0.34, p < .0001$), romantic competence ($\beta = -0.25, p < .0001$). These results suggest that even after controlling for stable personality factors, early adolescent affect continues predicting many important social and romantic outcomes.

5. Discussion

This study found that adolescent positive and negative affect largely act as independent predictors of social and romantic outcomes into adulthood. Early adolescent positive affect was linked to several of the romantic outcomes assessed: greater self-reported social competence in general, greater self-reported romantic competence specifically, and less partner-reported hostile conflict within the relationship in adulthood. Positive affect was marginally related to less self-reported anxious attachment behaviors. Negative affect was linked to poorer self-reported social competence and lower self-reported romantic competence in adulthood. When assessing both types of affect simultaneously, positive affect uniquely predicted relatively greater social competence, romantic competence, and partner-reported hostile conflict, while negative affect remained significant in predicting less social competence and romantic competence. Even after controlling for

relevant stable personality factors, positive affect continued to predict social competence, romantic competence, and partner-reported hostile conflict, while negative affect continued to predict social and romantic competence.

Prior findings on long-term predictors of conflict in romantic relationships have focused primarily on hostile, negative interactions and on the role of negative affect. However, our findings indicate that positive affect plays a role just as important, if not more important, compared to negative affect. When assessed individually or in combination with negative affect, positive affect predicted relatively less partner-reported hostile conflict within relationships. Our results highlight the importance of positive affect and perhaps positive interactions between couples in understanding the relationship between positive affect to hostile romantic conflict. If these results are replicable and reflect a causal process, then they would suggest that it may be beneficial to focus on building happiness and positive affect to reduce poor relationship functioning (Kansky et al., 2016).

Why might affect potentially predict romantic quality nearly a decade later? According to Fredrickson's broaden-and-build model (2001), perhaps negative affect impedes resource building while positive affect encourages the initiation and management of social resources. Positive emotions thus help build closer social connections that will be useful in times of future stress. Indeed, happy people are more likely to report having more friends, closer friends, spend more time talking with others, and engage in more social activities (Diener & Seligman, 2002; Mehl, Vazire, Holleran, & Clark, 2010). Although these findings highlight broader social benefits, it is likely positive affect builds resources for romantic relationships as well in terms of building positive relationship qualities such as healthy conflict management skills that result in lower hostile conflict. Further, a functional account of emotions suggests that affect guides social behavior by serving informative, evocative, and incentive functions (Keltner & Haidt, 2001; Keltner & Kring, 1998). It is quite likely that happy individuals are more likely to seek out and ultimately engage in positive social interactions, which benefits their perceived competence in navigating social and romantic development.

It is possible individuals have an overall sense of social identity and competence, which is largely formed by a combination of their affect and social interaction. Happy adolescents may be able to expand their social skills and resources during this period. Thus, happy teens take advantage of opportunities to further build their interpersonal skills with peers, increasing social competence. Ultimately, adolescents with high social competence are able to transfer their social skills with friends to romantic partners, resulting in romantic relationships with less hostile conflict and better perceived romantic competence.

Interestingly, affect is not significantly related to how much individuals reported enjoying their relationships as measured via relationship satisfaction. Further, many of our findings indicate affect may be a driver of more global relationship orientations, rather than of specific qualities of a particular relationship. Our results do not mirror previous findings that affect may drive relationship satisfaction. We believe this may be in part due to discrepancies between when we measure affect compared to prior studies. We measured affect long before romantic relationships began to form for adolescents, whereas studies that have identified affect as a driver of satisfaction often assess affect when already within a particular relationship. Relatedly, prior findings indicate that happy individuals are more likely to get married and stay married (Luhmann et al., 2013). However, our results did not find that affect was related to future relationship status. Our interpretation is that during young adulthood, romantic exploration is becoming more common as individuals are choosing to remain single or engage in a series of shorter-term relationships of various commitment

levels (Cohen, Kasen, Chen, Hartmark, & Gordon, 2003; Kafelas, Furstenberg, Carr, & Napolitano, 2011). Thus, during this developmental stage, young adults may not see a committed relationship as an essential goal, yet whereas in adulthood this task gains in importance and thus becomes significantly related to affect. Future research may benefit from further longitudinal studies of young adults in which affect is assessed prior to the start of a relationship and in which a measure of relationship goals is included.

Prior research has sometimes considered affect to reflect trait-level characteristics, similar to personality. It has been suggested that it is enduring personality traits, specifically extraversion, rather than positive affect and neuroticism, instead of negative affect, that may account for differences in social experiences (Lopez, Salovey, & Straus, 2003; Robins et al., 2002). However, we controlled for personality characteristics and our results largely remained. Specifically, after controlling for extraversion, positive affect continued to predict the same romantic outcomes in adulthood except for self-reported anxious attachment (which was initially only marginally significant in the original analyses). After controlling for neuroticism, negative affect continued to predict social and romantic competence. This adds support to the hypothesis that affect uniquely predicts important social outcomes beyond the contribution of personality traits.

Our results add to the well-being and relationship literature in several important ways. Most existing research linking affect and social relationships are cross-sectional or make relatively short-term predictions (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Lyubomirsky et al., 2005; Moore & Diener, in press). Few longitudinal studies exist assessing affect and social relationships and even fewer include initial affect during adolescence rather than in adulthood or within the context of an already existing relationship (Kansky et al., 2016; Resnick et al., 1997). Our study utilized early adolescent affect as our predictor for relationship outcomes over a decade later. We included current, momentary affect as the predictor as recalled and global affect has previously been linked to bias (Cutler et al., 1996; Lucas, 2000; Walker et al., 2003). The findings add support to the idea that positive affect is plausibly influential in the later outcomes rather than being a result of a potential third variable. This parallels burgeoning work identifying positive affect as a predictor of the development of close relationship quality (Kansky et al., 2016).

Second, prior findings have identified a strong link between affect and general social relationship quality. Only more recently has research more specifically assessed the link between affect and romantic relationships, and these findings are often limited to assessing concurrent adult relationship status (i.e., married versus single) or transitions (i.e., divorce, widowhood, engagement) and affect. Even those studies that have specified relationship qualities as opposed to these dichotomous categories have overwhelmingly been cross-sectional in nature. We more narrowly assessed key romantic relationship outcomes in young adult couples. As the age of marriage continues to increase in the United States, there is a need to assess romantic relationships during young adulthood including both married and unmarried couples, rather than assume the knowledge gained from adult marital research will apply to this population as well.

In addition, prior research on romantic quality and well-being is often limited to assessment of single reporters, creating methods confounds. Longitudinal studies assessing well-being with later outcomes almost exclusively rely on self-report data. Our study utilized both self and romantic partner reports for assessing relationship quality in order to reduce possible measurement biases. Utilizing another reporter of relationship quality provides richer data and stronger results. In particular, partners reported on amount of hostile conflict within the relationship and endorsed attachment anxiety and avoidance behaviors they noticed in their

partners. Our findings indicate that there may be a stronger link between affect and partner perceptions of anxious attachment behaviors of their partner, than between affect and self-reported of anxious behaviors. This may mirror earlier findings that individuals have difficulties self-reporting higher order processes such as attachment processes, so that it is advantageous to utilize partner report to capture these behaviors as well. Romantic competence and relationship satisfaction remained as self-report measures, as these are both thought to be internal, self-concept principles that are better captured by individual reports.

Although our study addresses several prior methodological limitations of similar research by including multi-reporters, longitudinal data, earlier measures of affect, and a diverse nonmarried sample, we acknowledge several limitations. Despite these strengths, we acknowledge that the study may have low power due to our sample size. Because our study is not experimental, we cannot establish causal relationships. We should measure both affect and outcome at each point in time within longitudinal studies to determine whether they change together. In addition, our results may not generalize to all adolescents and young adults. For example, our sample was demographically diverse with middle socioeconomic status – future work may want to specifically target low or high income families to determine whether the role of affect in teens' lives impacts romantic outcomes differently.

Another alternative explanation for our findings is that concurrent levels of positive and negative affect are associated with romantic relationship functioning in adulthood. We acknowledge that it is possible that the dispositional level of affect that is accounting for romantic functioning. Without controlling for concurrent affect in adulthood, it may be that the stability of affect from adolescence into adulthood is the driving mechanism behind our findings. However, prior research suggests affect remains moderately stable over time especially during the transition to adulthood from age 18 to 24 (Watson & Walker, 1996). Because people tend to experience personality changes in the same directions (i.e., social vitality and openness increase in adolescence while emotional stability increases in young adulthood), we would likely still find an association between adult affect and our measures of romantic functioning (Robert & Mroczek, 2008; Roberts, Walton, & Viechtbauer, 2006). However, in future waves of data collection, we may administer an affect measure to address this potential confound of affect stability. Ideally, in future studies, we would compare both concurrent and predictive associations between affect and our romantic outcomes with the new affect data.

Additionally, our study included romantic relationship functioning as reported by both the target individual and his/her romantic partner on the target's behavior. Including partner reports of conflict and attachment behaviors reduces the potential self-report bias that exists when solely using self-report data. In addition, prior findings indicate that individuals may inaccurately self-report higher order processes such as attachment and relationship schemas (Main & Goldwyn, 1985; Nisbett & Wilson, 1977). A possible limitation is that we did not ask partners to report on their perceptions of the target participant's romantic competence. It is possible that romantic competence is a higher order construct that individuals may be biased in reporting. In a future wave of data collection, partner-rated romantic competence of the target participant may be assessed to determine whether individuals and partners identify romantic competence differently. In addition, we focused mainly on the target participant's contribution to relationship functioning, rather than the dyadic contribution of the couple. Thus, we did not assess partner functioning and did not include partner information as covariates as this would tend to reduce our ability to explain outcome variance in the variables we were most interested in. Future work can include partner influence as potential moderators or outcomes relating to earlier affect.

Nonetheless, our study is unique in that we assess romantic outcomes in adulthood using early adolescent affect as a predictor – before most individuals even report romantic involvement. Because we assessed affect as a predictor across a span of a decade, there may be important unmeasured mediators that partially account for our findings. Future research may assess other relational or individual differences that may account for the link between affect and romantic quality. In addition, future studies may assess more specific, discrete positive emotions rather than overall positive affect to determine whether different emotions such as joy, contentment, or enjoyment impact distinct relational outcomes. Prior findings indicate that gratitude, for example, increases cooperation and openness to receiving support (McCullough, Emmons, & Tsang, 2002). Given the increasing salience of romantic functioning to well-being during early adulthood, identifying the utility of distinct emotions in developing healthy perceptions of abilities to navigate relationships as well as specific relationship qualities is critical.

References

- Allen, J. P., Narr, R. K., Kansky, J., & Szewedo, D. E. (2019). Adolescent Peer Relationship Qualities as Predictors of Long-Term Romantic Life Satisfaction. *Child Development*. <https://doi.org/10.1111/cdev.13193>.
- Arbuckle, J. L. (1996). Full information estimation in the presence of missing data. In G. A. Marcoulides & R. E. Schumaker (Eds.), *Advanced structural equation modeling: Issues and techniques* (pp. 243–277). Mahwah, NJ: Erlbaum.
- Arnett, J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469–480.
- Banse, R. (2004). Adult attachment and marital satisfaction: Evidence for dyadic configuration effects. *Journal of Social and Personal Relationships*, 21, 273–282.
- Barry, C. M., Madsen, S. D., Nelson, L. J., Carroll, J. S., & Badger, S. (2009). Friendship and romantic relationship qualities in emerging adulthood: Differential associations with identity development and achieved adulthood criteria. *Journal of Adult Development*, 16. <https://doi.org/10.1007/s10804-009-9067-x>.
- Berry, D. S., & Willingham, J. K. (1997). Affective traits, responses to conflict, and satisfaction in romantic relationships. *Journal of Research in Personality*, 31(4), 564–576.
- Braithwaite, S. R., Delevi, R., & Fincham, F. D. (2010). Romantic relationships and the physical and mental health of college students. *Personal Relationships*, 17(1), 1–12.
- Brennan, K., Clark, C., & Shaver, P. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Hoopes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York, NY: Guilford Press.
- Burger, J. M., & Caldwell, D. F. (2000). Personality, social activities, job-search behavior and interview success: Distinguishing between PANAS trait positive affect and NEO Extraversion. *Motivation and Emotion*, 24(1), 51–62.
- Campbell, L., Simpson, J. A., Boldry, J. G., & Kashy, D. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, 88, 510–531.
- Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, 59(2–3), 228–249.
- Cobb, R. J., Davila, J., & Bradbury, T. N. (2001). Attachment security and marital satisfaction: The role of positive perceptions and social support. *Personality and Social Psychology Bulletin*, 27, 1131–1143.
- Cohen, P., Kasen, S., Chen, H., Hartmark, C., & Gordon, K. (2003). Variations in patterns of developmental transitions in the emerging adulthood period. *Developmental Psychology*, 39, 657–669.
- Collins, W. A., Henninghausen, K. C., Schmit, D. T., & Sroufe, L. A. (1997). Developmental precursors of romantic relationships: A longitudinal analysis. *New Directions for Child and Adolescent Development*, 78, 69–84.
- Collins, W. A., & Laursen, B. (2000). Adolescent relationships: The art of fugue. In C. Hendrick & S. S. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 59–69). Thousand Oaks, CA, US: Sage Publications Inc.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644–663.
- Collins, N. L., & Read, S. J. (1994). Cognitive representations of attachment: The structure and function of working models. *Advances in Personal Relationships*, 5, 53–90.
- Collins, W. A., Welsh, D. P., & Furman, W. (2009). Adolescent romantic relationships. *Annual Review of Psychology*, 60, 631–652.
- Connolly, J. A., & Johnson, A. M. (1996). Adolescents' romantic relationships and the structure and quality of their close interpersonal ties. *Personal Relationships*, 3(2), 185–195.
- Connolly, J., Furman, W., & Konarski, R. (2000). The role of peers in the emergence of heterosexual romantic relationships in adolescence. *Child Development*, 71(5), 1395–1408.
- Crawford, J. R., & Henry, J. D. (2010). The Positive and Negative Affect Schedule (PANAS): Construct validity, measurement properties and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 43, 245–265.
- Creasey, G., Kershaw, K., & Boston, A. (1999). Conflict management with friends and romantic partners: The role of attachment and negative mood regulation expectancies. *Journal of Youth and Adolescence*, 28, 523–543.
- Cutler, S. E., Larsen, R. J., & Bruce, S. C. (1996). Repressive coping style and the experience and recall of emotion: A naturalistic study of daily affect. *Journal of Personality*, 64, 379–405.
- Davila, J., Mattanah, J., Bhatia, V., Latack, J. A., Feinstein, B. A., Eaton, N. R., ... Zhou, J. (2017). Romantic competence, healthy relationship functioning, and well-being in emerging adults. *Personal Relationships*, 24(1), 162–184.
- Davis, M. H., & Oathout, H. A. (1987). Maintenance of satisfaction in romantic relationships: Empathy and relational competence. *Journal of Personality and Social Psychology*, 53(2), 397–410.
- Demir, M. (2008). Sweetheart, you really make me happy: Romantic relationship quality and personality as predictors of happiness among emerging adults. *Journal of Happiness Studies*, 9, 257–277.
- DeNeve, K., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin*, 124, 197–229.
- Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of Personality and Social Psychology*, 47, 1105–1117.
- Diener, E., Gohm, C. L., Suh, E., & Oishi, S. (2000). Similarity of the relations between marital status and subjective well-being across cultures. *Journal of Cross-Cultural Psychology*, 31, 419–436.
- Diener, E., & Seligman, M. E. P. (2002). Very happy people. *Psychological Science*, 13, 80–83.
- Dush, C. M. K., & Amato, P. R. (2005). Consequences of relationship status and quality for subjective well-being. *Journal of Social and Personal Relationships*, 22, 607–627.
- Drydal, G. M., Roysamb, E., Nes, R. B., & Vitterso, J. (2011). Can a happy relationship predict a happy life? A population-based study of maternal well-being during the life transition of pregnancy, infancy, and toddlerhood. *Journal of Happiness Studies*, 12, 947–962.
- Fischer, A. H., & Manstead, A. S. (2008). Social functions of emotion. *Handbook of Emotions*, 3, 456–468.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226.
- Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, 95, 1045–1062.
- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology*, 21, 1016–1022.
- Furman, W., & Wehner, E. (1994). Romantic views: Toward a theory of adolescent romantic relationships. In R. Montemayor, G. Adams, & T. Gullotta (Eds.), *Personal relationships during adolescence* (pp. 168–195). CA: Sage Productions.
- Gest, S. D., Sesma, A., Masten, A. S., & Tellegen, A. (2006). Childhood peer reputation as a predictor of competence and symptoms 10 years later. *Journal of Abnormal Child Psychology*, 34, 509–526.
- Giordano, P. C., Manning, W. D., Longmore, M. A., & Flanigan, C. M. (2009). Developmental shifts in the character of romantic and sexual relationships from adolescence to young adulthood (Working Paper No. 09-10). Retrieved from <https://www.bgsu.edu/content/dam/BGSU/college-of-arts-and-sciences/NCFMR/documents/WP/WP-09-10.pdf>.
- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. C. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality*, 40, 84–96.
- Gottman, J. M. (1994). *What predicts divorce?* Hillsdale, NJ: Lawrence Erlbaum Associates.
- Hand, L. S., & Furman, W. (2009). Rewards and costs in adolescent other-sex friendships: Comparisons to same-sex friendships and romantic relationships. *Social Development*, 18(2), 270–287.
- Harter, S. (1995). Manual for the self-perception profile for adults. Unpublished manuscript. CO: University of Denver.
- Harter, S. (1988). Manual for the self-perception profile for adolescents. Unpublished manuscript. CO: University of Denver.
- Hefner, J., & Eisenberg, D. (2009). Social support and mental health among college students. *American Journal of Orthopsychiatry*, 79(4), 491–499.
- Hendrick, S. S., Dicke, A., & Hendrick, C. (1998). The relationship assessment scale. *Journal of Social and Personal Relationships*, 15(1), 137–142.
- Huppert, F. A., & Whittington, J. E. (2003). Evidence for the independence of positive and negative well-being: Implications for quality of life assessment. *British Journal of Health Psychology*, 8, 107–122.
- Kafelas, M. J., Furstenberg, F. F., Carr, P. J., & Napolitano, L. (2011). "Marriage is more than being together": The meaning of marriage for young adults. *Journal of Family Issues*, 32(7), 845–875.
- Kansky, J., Allen, J. P., & Diener, E. (2016). Early adolescent affect predicts later life outcomes. *Applied Psychology: Health and Well-Being*, 8, 192–212.
- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, methods, and research. *Psychological Bulletin*, 118, 3–34.

- Keltner, D., & Haidt, J. (2001). Social functions of emotions. In T. Mayne & G. A. Bonanno (Eds.), *Emotions: Current issues and future directions* (pp. 192–213). New York: Guilford Press.
- Keltner, D., & Kring, A. M. (1998). Emotion, social function, and psychopathology. *Review of General Psychology, 2*, 320–342.
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development, 59*, 135–146.
- Krokoff, L. J. (1987). The correlates of negative affect in marriage: An exploratory study of gender differences. *Journal of Family Issues, 8*(1), 111–135.
- Kuwabara, S. A., Van Voorhees, B. W., Gollan, J. K., & Alexander, G. C. (2007). A qualitative exploration of depression in emerging adulthood: Disorder, development, and social context. *General Hospital Psychiatry, 29*(4), 317–324.
- Lambert, N. M., Fincham, F. D., Gwinn, A. M., & Ajayi, C. A. (2011). Positive relationship science: A new frontier for positive psychology. In K. M. Sheldon, T. B. Kashdan, & M. F. Steger (Eds.), *Designing positive psychology: Taking stock and moving forward* (pp. 280–292). Oxford Scholarship Online.
- Larsen, R. J., & Ketelaar, T. (1991). Personality and susceptibility to positive and negative emotional states. *Journal of Personality and Social Psychology, 61*(1), 132–140. <https://doi.org/10.1037/0022-3514.61.1.132>.
- Levenson, R. W., & Gottman, J. M. (1985). Physiological and affective predictors of change in relationship satisfaction. *Journal of Personality and Social Psychology, 49*, 85–94.
- Li, T., & Chan, D. K. (2012). Anxious and avoidant attachment affect romantic relationship quality differently: A meta-analytic review. *European Journal of Social Psychology, 42*, 406–419.
- Lopez, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality, and the perceived quality of social relationships. *Personality and Individual Differences, 35*, 641–658.
- Love, A. B., & Holder, M. D. (2015). Can romantic relationship quality mediate the relation between psychopathy and subjective well-being? *Journal of Happiness Studies, 17*, 2407–2429.
- Lucas, R. E. (2000). Pleasant affect and sociability: Towards a comprehensive model of extraverted feelings and behaviors. Unpublished Doctoral Dissertation. Urbana-Champaign: University of Illinois.
- Luhmann, M., Lucas, R. E., Eid, M., & Diener, E. (2013). The prospective effect of life satisfaction on life events. *Social Psychological and Personality Science, 4*, 39–45.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin, 131*, 803–855.
- Madsen, S. D., & Collins, W. A. (2011). The salience of adolescent romantic experiences for romantic relationship qualities in young adulthood. *Journal of Research on Adolescence, 21*(4), 789–801.
- Main, M., & Goldwyn, R. (1985). Adult attachment classification system. Unpublished manuscript. Berkeley: University of California.
- McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology, 82*, 112–127.
- Meus, W. H. J., Branje, S. J. T., van der Valk, I., & de Wied, M. (2007). Relationships with intimate partner, best friend, and parents in adolescence and early adulthood: A study of the saliency of the intimate partnership. *International Journal of Behavioral Development, 31*, 569–580.
- Mehl, M. R., Vazire, S., Holleran, S. E., & Clark, C. S. (2010). Eavesdropping on happiness: Well-being is related to having less small talk and more substantive conversations. *Psychological Science, 21*(4), 539–541.
- Meyer, D. D., Jones, M., Rorer, A., & Maxwell, K. (2015). Examining the associations among attachment, affective state, and romantic relationship quality. *The Family Journal: Counseling and Therapy for Couples and Families, 23*(1), 18–25.
- Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion, 27*, 77–102.
- Moore, E., & Diener, E. (2019). Does subjective well-being cause better social relationships?: A multi-method explanation. University of Utah (in press).
- Montgomery, M. J. (2005). Psychosocial intimacy and identity from early adolescent to emerging adulthood. *Journal of Adolescent Research, 20*, 346–374.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 84*(3), 231–259.
- Porter, M. R. (2000). Affective arousal scale manual. Unpublished manuscript. VA: University of Virginia.
- Reis, H. T., Collins, W. A., & Berscheid, E. (2000). The relationship context of human behavior and development. *Psychological Bulletin, 126*, 844–872.
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., ... Ireland, M. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *The Journal of the American Medical Association, 278*, 823–832.
- Robins, R. W., Caspi, A., & Moffitt, T. E. (2002). It's not just who you're with, it's who you are: Personality and relationship experiences across multiple relationships. *Journal of Personality, 70*, 925–964. <https://doi.org/10.1111/1467-6494.05028>.
- Roisman, G. I., Masten, A. S., Coatsworth, J. D., & Tellegen, A. (2004). Salient and emerging developmental tasks in the transition to adulthood. *Child Development, 75*, 123–133.
- Robert, B. W., & Mroczek, D. (2008). Personality trait change in adulthood. *Current Directions in Psychological Science, 17*, 31–35.
- Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin, 132*(1), 1–25.
- Rowe, A., & Carnelley, K. B. (2003). Attachment style differences in the processing of attachment-relevant information: Primed-style effects on recall, interpersonal expectations, and affect. *Personal Relationships, 10*, 59–75.
- Rusting, C. L., & Larsen, R. J. (1997). Extraversion, neuroticism, and susceptibility to positive and negative affect: A test of two theoretical models. *Personality and Individual Differences, 22*(5), 607–612.
- Schimmack, U., & Diener, E. (2003). Predictive validity of explicit and implicit self-esteem for subjective well-being. *Journal of Research in Personality, 37*(2), 100–106.
- Schulenberg, J. E., Bryant, A. L., & O'Malley, P. M. (2004). Taking hold of some kind of life: How developmental tasks relate to trajectories of well-being during the transition to adulthood. *Development and Psychopathology, 16*, 1119–1140.
- Seiffge-Krenke, I. (2003). Testing theories of romantic development from adolescence to young adulthood: Evidence of developmental sequence. *International Journal of Behavioral Development, 27*, 519–531.
- Stutzer, A., & Frey, B. S. (2006). Does marriage make people happy, or do happy people get married? *The Journal of Socio-Economics, 35*, 326–347.
- Walker, W. R., Skowronski, J. J., & Thompson, C. P. (2003). Life is pleasant – and memory helps to keep it that way! *Review of General Psychology, 7*(2), 203–210.
- Watson, D., & Walker, L. M. (1996). The long-term stability and predictive validity of trait measures of affect. *Journal of Personality and Social Psychology, 70*, 567–577.
- Wolfe, D. A., Reitzel-Jaffe, D., Gough, R., & Wekerle, C. (1994). Conflicts in relationships: Measuring physical and sexual coercion among youth. Unpublished manuscript. Available from the Youth Relationships Project, Department of Psychology, the University of Western Ontario, London, Canada, N6A 5C2.
- Zarrett, N., & Eccles, J. (2006). The passage to adulthood: Challenges of late adolescence. *New Directions for Student Leadership, 111*, 13–28.