Attachment Style, Self-esteem, and Locus of Control in Adult Children of Divorce

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Abstract

Prior research has indicated that the attachment styles of children who have been through a parental divorce develop in a less secure way in comparison to children with intact parental relationships (Evans & Bloom, 1996; Sprecher, Cate, & Levin, 1998; Brennen & Shaver, 1998; Summers, Forehand, Armistead, & Tannenbaum, 1998; Lewis, Feiring, & Rosenthal, 2000, as cited in Sirvanli-Ozen, 2015). It has also been demonstrated that lower self-esteem is associated with children who have weaker parent-child relationships (Mustonen et al., 2011), as well as an unclear pattern of locus of control between these two groups (Glover & Steele, 1988; St-Yves et al., 1989; Kalter et al., 1984). This study examined the relationship between attachment style, self-esteem, and locus of control between children of divorce and intact families. The purpose of doing so is to provide a better understanding of not only how parental divorce impacts a child's future relationships, but their feeling of self and the world around them. Adults aged 21-30 ($N =$ 222) were separated into groups contingent on their parental status and completed self-report measures assessing their attachment style, self-esteem, locus of control, and perceived interparental conflict as a child. This experiment utilized a differential group method where results relied on correlational and regression analyses. No prior research has implemented a self-discrepancy style self-esteem measure for these groups, which was shown to mirror Rosenberg Self-Esteem (RSE) results. Results showed children of divorce displayed less secure forms of attachment, with no differences in self-esteem or locus of control between groups. While results showed that increased perception of conflict was significantly associated with attachment anxiety in children of divorce, this was not the case for attachment avoidance or attachment ambivalence.

Keywords: Attachment Style, Self-Discrepancy, Self-Esteem, Locus of Control, Divorce

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Today's stressful society creates many sources of anxiety and uncertainty. One source of this anxiety relates to family interactions during development, including our relationships with our parents. Parental relationships help to shape how a child sees the world and their future relationships (Hayashi & Strickland, 1998). Parental divorce can place a good deal of stress on children as children from divorced families are seemingly more vulnerable due to their increased rates of depression and anxiety (Storksen et al., 2006). This increased vulnerability may lead to a difference in adult attachment styles (when compared to children of non-divorced families) which may play an explanatory role not in only future relationships, but in certain personality characteristics as well.

Divorce is not a one-time traumatic event, but a series of extended stressful events. This can lead to short- and longer-term consequences. For example, children whose parents divorce exhibit more behavioral problems (Anderson & Green, 2013). In the future, they are at increased risk of drug use and abuse in future relationships (Anderson & Green, 2013). But what links the experience of divorce to challenges later in life? One possibility is that the individual develops beliefs about the self or the world that shape how they interpret events and interact with others. In other words, the impact of divorce upon the individual may be due to changes in internal dispositions (e.g., beliefs; attitudes; personality traits). Studies have shown the connection between low self-esteem and having divorced parents (Baker & Ben-Ami, 2011). Further, reduced self-esteem stemming from divorce has may persist into adulthood (Bastaits et al., 2012). Children of divorced parents also may develop negative personality characteristics like aggressive behavior and impulsiveness (O'Connor et al., 2000). These personality traits not only impact how the individual sees themselves, but they may also affect how the person views and

relates to others. The present study seeks to examine associations between self-esteem and locus of control with relational functioning in a sample of adults whose parents have divorced.

Future relationships of Children of Divorce

Divorce can impact a child's future relationships. For example, adults (who went through a parental divorce in childhood) are more likely to prefer cohabitation with their future partners than marriage (Christensen & Brooks, 2001). According to Christensen and Brooks (2001), these adults are more willing to consider divorce an option when evaluating the future of a relationship. Adults who experienced a parental divorce have been found to have higher divorce rates (Booth, Brinkerhoff, & White, 1984; Kitson, 1992, as cited in Christensen and Brooks, 2001). Mustonen and colleagues (2011) similarly found higher divorce rates, but also found that daughters were much higher in divorces than sons. These daughters exhibited lower self-esteem, had poorer relationships with their parents and poorer intimate relationships with their future partners (Mustonen et al, 2011). This study highlights the importance of looking at not only how divorce may affect a child's self-esteem, but how there are differences in outcomes when looking at gender.

Locus of control in Children of Divorce

Glover and Steele (1988) analyzed the emotional behaviors, social behaviors, and locus of control (LOC) of children in joint-custody and single-parent custody situations. The results showed that joint-custody children believed they had more control over their environment (internal LOC) than those in single-custody situations. Joint-custody tended to produce preferable outcomes compared to single-custody (higher scores in self-concept and father relationships); however, joint-custody outcomes were less favorable than those experienced by individuals from intact families (Glover & Steele, 1988). A drawback to this study was its low

dsample size of 24, which calls for another study to yield more significant results. Therefore, I intend to use a demographic questionnaire to determine the participants living situation to confirm this result for LOC.

Since this early study, subsequent studies have produced mixed results regarding LOC in COD. St-Yves et al. (1989) tested 302 children (31 COD) found that there was no difference in LOC between children in intact and divorced families aged nine to 12 years old. Wiehe (1985) used 62 COD and 60 children from intact families and found that COD had more of an external LOC. Children from divorced families also displayed lower self-esteem (social, academic, and parental) as well as more negative attitudes toward both parents. Differences between males and females were present, with males having lower academic self-esteem and females having poorer father relationships (Wiehe, 1985). In Iran, Besharat and colleagues (2018) found that COD had significantly higher chance and powerful others locus of control (external LOC) when compared to children from intact families. Finally, COD were found to have an internal locus of control in a study with 48 third and fifth graders where half of the students were COD (Kalter et al., 1984). These studies do not show a clear pattern. Some studies find evidence suggesting that divorce impacts LOC, while others do not. However, all studies highlight the importance of looking at differences between men and women and call for further analysis.

Attachment Styles of Children of Divorce

Sirvanli-Ozen's (2015) literature review highlighted that experiencing parental divorce is considerably associated with the development of poor parental relationships in adolescence (Woodward, Ferguson, & Belsky, 2000, as cited in Sirvanli-Ozen, 2015). This may lead to the development of insecure working models in adolescents, which then persist into adulthood. A longitudinal study on children exposed to divorce found that divorce reduces the likelihood of

developing secure attachment with parents and increases the likelihood of developing

preoccupied attachment styles (Beckwith, Cohen, & Hamilton, 1999, as cited in Sirvanli-Ozen,

2015). Given that attachment with parents has been a predictor of the quality of later

relationships in adulthood (Mikulincer & Shaver, 2008), one may speculate that CODs may

experience increased risk for insecure romantic attachments.

Overall, however, the number of studies on this topic is limited and results across studies

are inconsistent. Some studies state that university students coming from intact and divorced

families show no significant differences in romantic attachment styles (Lopez, Melendez, &

Rice, 2000; Brennen & Shaver, 1993; Feeney & Noller, 1990; Ensign, Scherman, & Clark, 1998,

as cited in Sirvanli-Ozen, 2015). Other studies have found that CODs have less secure romantic

attachment styles (Evans & Bloom, 1996; Sprecher, Cate, & Levin, 1998; Brennen & Shaver,

1998; Summers, Forehand, Armistead, & Tannenbaum, 1998; Lewis, Feiring, & Rosenthal,

2000, as cited in Sirvanli-Ozen, 2015). Finally, one study found that going through a parental

divorce had a positive correlation with anxious adult romantic attachment styles and a negative

correlation with secure ones (Mickelson, Kessler, & Shaver, 1997, as cited in Sirvanli-Ozen,

2015).

Brennan and Shaver (1993) found that adult attachment style was correlated to not only

one's subjective evaluation of their relationship quality, but to their parents' marital quality and

remarriage status. These authors assert that parental divorce is not the "direct" cause of the

children's relationship outcomes or attachment style because not all intact and divorce marriages

come equal. It is possible that intact families have some distress, and some separated parents get

along very well. Thus, the degree of parental cohesion post-divorce may play an important role

in shaping the impact the divorce has on the child. The varying degree of security post-divorce

may promote these differing attachment styles in the children as well (Brennan & Shaver, 1993). It is possible that parental cohesion post-divorce may be an important factor in how the child interprets and makes meaning of the divorce.

Walker and Ehrenberg (1998) investigated the relationship between 81 young adult's attachment styles and perceptions of the reasons for their parents' divorces. Results showed that 73% of the young adults displayed an insecure attachment style. The perception of COD of why they believe their parents divorced were significantly related to their attachment outcomes. For example, parents showing increased overt anger, issues surrounding children involvement, and affairs were most important in differentiating insecure and secure attachments in their children (Walker & Ehrenberg, 1998).

Hayashi and Strickland (1998) examined the long-term effects of parental divorce on a person's romantic relationships in a sample of 172 college students, 78 of which were COD. Students who reported feeling secure in their relationships also reported having accepting parents who encouraged their independence. Conversely, those who reported fears of abandonment and feelings of jealously also reported having overprotective, rejecting parents who frequently have conflict (Hayashi & Strickland, 1998).

Self-esteem and Divorce

Mustonen and colleagues (2011) claimed that self-esteem (a dimension of personality) was higher when the child had a stronger parent-child relationship. This was found to be especially important when looking at same-sex parent-child relationships (Shook et al., 1993). The same was also found to be true with lower self-esteem; children showed lower levels of self-esteem with weaker parent-child relationships (Esmaeili et al., 2012). When divorce negatively impacts child-parent relationships it may also negatively affect the child's self-esteem.

Bynum and Durm (1996) tested the self-esteem scores of 60 COD and 60 children in intact families. Participants were students aged 13-18 years. COD had intermediate and high scores on self-esteem while the others had high and very high scores on self-esteem. This study highlighted the importance of looking at the income of these families as this dictates the amount of marital support (for educational activities) parents can provide. This is thought to influence the academic self-esteem (Bynum & Durm, 1996).

When divided by era (1950-1969, 1970-1979, and 1980-1989) a comprehensive meta-analysis found that the effect on COD decreased over time (Amato & Keith, 1991, as cited in Reifman et al., 2001). This study was then followed up for the 1990 era utilizing 35 published articles. Testing several dimensions of child well-being (e.g., mother-child relations, father-child relations, school achievement, conduct, and psychological adjustment) and specifically assessing self-concept. They concluded that when compared to children from intact families, COD in the 1990s experienced slightly more negative outcomes than those of earlier decades (Reifman et al., 2001). Amato (2001) also followed up their own previous meta-analysis examining 67 newer publications. Results showed that COD scored significantly lower than children from intact families in the measures of self-esteem (Amato, 2001).

One longitudinal study looked at how divorce impacts a child's development (skills and traits) before, during, and after divorce in a kindergarten class from 1998 to 1999 until 8th grade (Kim, 2011). The researchers had a sample including 3,443 children with intact families and 142 COD. The most distress occurred during the divorce which included lower interpersonal skills, lower levels of confidence, as well as the trend to internalize their problems. These findings suggest it may be harder for those children to form new relationships or friendships. Post-

divorce, these effects did not change which highlights the tendency for these traits to prolong into adulthood. Thus, CODs may show long-term changes in self-esteem.

A similar study looked at self-esteem, the relationship between divorce and personality characteristics. It was found that there were higher levels of aggressive and impulsive behavior as well as lower self-esteem and confidence in children of divorced parents (Angjelkoska, 2015). The results of both studies were more pronounced when the parents went through a more traumatic divorce.

Self-discrepancy, Self-esteem, and Attachment style

Carl Roger's work on psychotherapy and personality led to the discovery of incongruence. Incongruence was defined by Rogers as the feeling a person has when they are far from the person they wish they were. Symptoms of lower self-esteem are present when this gap is large (incongruence) while symptoms of higher self-esteem (positive self-view) are present when this gap is small (congruence) (Rogers & Dymond, 1954).

Researchers expanded Roger's view through the development of self-discrepancy theory, which states that individuals create a comparison between their actual and ideal selves. Higgins (1987) divided the self into three groups: ideal, actual, and ought. These distinct categories of self-discrepancy were examined through a Selves-Questionnaire (SQ), where findings support the idea of self-discrepancies determining differing displays of emotional distress (Scott & O'Hara, 1993; McDaniel & Grice, 2008). Previous research also indicate that more positive views of self are correlated to higher levels of attachment security (Bartholomew, 1990; Bylsma, Cozzarelli & Sumer, 1997; Foster, Kernis & Goldman, 2007). These findings exemplify the link between self-discrepancy, self-esteem, and attachment style.

A Speculative Theory for how Parental Management of the Divorce Process Impacts Self-Other Representations

The impact divorce has on children can vary greatly depending on parental management. But it is evident that those who do go through a traumatic divorce have multiple negative consequences. First, children lose time with each parent and thus do not develop as strong of an emotional connection (Anderson, 2014). This, along with the previous cited literature, are why I believe attachment styles to be at stake in COD. If this continues to be true, then higher scores of children's perception of interparental conflict (CPIC) would be associated with higher scores on ambivalence and attachment anxiety.

Next, COD consistently score lower in measures of self-concept, social relations, and academic achievement (Amato & Keith, 1991). The weaker the parent-child relationship, the lower self-esteem was (Esmaeili et al., 2012). If this proves to be true, then higher scores on the CPIC would be expected to be associated with lower scores on the Rosenberg self-esteem scale and higher levels of discrepancy on the self-discrepancy task.

Finally, there are no definitive literature regarding COD and LOC. Some studies report that COD report more of an external LOC (Besharat et al., 2018), more of an internal LOC (Kalter et al., 1984), and no difference in LOC (St-Yves et al., 1989). I believe LOC to be correlated to severity of divorce. When children do not have control of which parent has custody or where they're going to be, this may lead them to develop and external LOC. Thus, higher scores of CPIC would then be associated with lower levels of internal LOC.

Limitations and Gaps

Most of the aforementioned studies did not precisely define divorce (child's age at time of occurrence or severity). These studies also did not consider other causes of divorce such as

poverty. Results could differ based on such variables. Another limitation in the literature is small sample sizes and the tendency to test freshmen college students, which may result in biased results. Locus of control is another gap that I plan to test as it is conflicting in the literature. Previous literature did not clearly indicate if the participants had either biological or adoptive parents, which was shown to have an impact on outcomes. Previous studies analyzed links between attachment and self-esteem through self-report measures, which is why I intend to examine this link through the use of self-discrepancy. I intend to clearly differentiate severities of divorce, screen for other variables through a demographic questionnaire, test those who are past college age and have a large sample size.

Method

Participants

This was a differential group study in which participants self-selected to be in the COD group or the non-divorced group based on the parent's relational status and age requirement of 21-30. Those whose parents divorced when they were between the ages of zero and 18 entered the COD group. Those whose parents were not divorced at any point were entered into the non-divorced group. The COD group was composed of 106 participants. Of these, 49.1% identified as male, 50.1% identified as female, and 0.9% identified as non-binary. With regards to ethnicity, 9.4% identified as African American/Black, 6.6% Asian American/East Asian, 80.2% Caucasian/White, 1.9% Hispanic/Latinx, and 1.9% reported Other/Mixed. The non-divorced group was composed of 116 participants. Of these, 45.7% identified as male, 53.4% identified as female, and 0.9% identified as non-binary. With regards to ethnicity, 12.1% identified as African American/Black, 7.8% Asian American/East Asian, 67.2% Caucasian/White, 7.8% Hispanic/Latinx, and 5.2% reported Other/Mixed.

Materials

The participants began with a demographic questionnaire. This determined characteristics like gender, child age of the divorce, divorce severity, income, etc. (See Appendix B). These demographics were vital for later data interpretation.

Children's Perception of Interparental Conflict scale

Children's Perception of Interparental Conflict scale (CPIC) (see Appendix G) was used to examine how the adult felt during parental conflict (as a child) and was found to be reliable and valid for late adolescents (Moura et al., 2010). This further depicts their perception of how their parental divorce affected them, regardless of the divorce's severity. The scale consisted of 51 items in which the participants respond T (true, scored as one), ST (sort of true, scored as two) or F (false, scored as three). The higher the score on each item, the more negative the appraisal of the item (Grych et al., 1992). In the present study, we estimated internal consistency for the CPIC by calculating coefficient alpha for the superordinate scales. Item 19 was omitted from the study due to problems with the wording of this item. Coefficient alpha for the conflict properties superordinate scale was 0.91, which is in the excellent range. Alphas for subscales were also within acceptable ranges (frequency alpha= 0.80, intensity alpha= 0.87, and resolution alpha = 0.90). Coefficient alpha for the threat superordinate scale was 0.82, which is in the good range. Subscales for this superordinate scale were also within acceptable ranges (perceived threat; alpha= 0.89, coping efficacy; alpha= 0.76). Coefficient alpha for the self-blame superordinate scale was 0.81, which is in the good range. Alpha for the subscales for this superordinate scale were mixed with one that was slightly below the typical range (self-blame; alpha= 0.68) and one that was in the good range (content, alpha= 0.81).

Rosenberg Self-Esteem scale and Self-Discrepancy

The Rosenberg self-esteem scale was used to assess self-esteem (see Appendix C). Chosen for its high reliability and internal consistency (Rosenberg 1965), this four point 10-item Likert scale asked participants to choose between strongly agree, agree, disagree, and strongly disagree. The scale was scored by assigning points to each response, reverse scoring items 2, 5, 6, 8, 9, and summing all scores. Higher scores indicated higher self-esteem. In the present study, we estimated internal consistency for the RSE total score by calculating coefficient alpha. Coefficient alpha for the RSE in our sample was .93, which is in the excellent range.

Self-discrepancies also tested self-esteem and was measured with an online modified version of the Selves Questionnaire (SQ; Higgins, 1987) through Qualtrics (see Appendix H). Following a modified approach developed by Carver, Lawrence, and Scheier (1999), this version of the SQ asked each participant to list seven words that describe their ideal self. Participants then rated each word for how well it described their current self on a scale of 1-7 (1=*I Am Exactly Like This Trait*, 7=*I Am The Opposite Of This Trait*). In the present study, we estimated internal consistency for each self-discrepancy by calculating coefficient alpha. Coefficient alpha for the ideal and ought self in our sample was 0.89, both of which is in the good range.

Inventory of Interpersonal Ambivalence (IIA-9) Short Form and ECR-S

Adult attachment was measured using the Inventory of Interpersonal Ambivalence-9 (C. Seifert, personal communication, April 19, 2021) (see Appendix D) and the short-form of the Experience in Close Relationships Scale (ECR-S) (Wei et al., 2007) (see Appendix F). The IIA-9 is a nine-item scale that looked at how one may react to close relationships. This scale has proven to be both reliable and valid and is scored on a point system based on if something is false, slightly true, mainly true, and very true. The scale was scored by averaging responses rather than summing. This scale is most usefully measured when taken in conjunction with the

ECR-S as it fully grasps the nature of one's current and future relationships. In the present study,

we estimated internal consistency for the IIA-9 total score by calculating coefficient alpha.

Coefficient alpha for the IIA-9 in our sample was .96, which is in the excellent range.

The ECR-S was used to scale measure maladaptive attachment (such as attachment

avoidance and anxiety) in adults in romantic relationships (see Appendix E). The 12-item ECR-S

gave scores for attachment avoidance and attachment anxiety (minimum score is 7 and a

maximum score of 42). If the participant was not in a current relationship, it may be helpful to

describe a past relationship. This scale showed high internal validity and consistency when

compared to its long-form version. Scores are described in terms of percentile ranks compared to

a normative sample. For example, 50th percentile represented healthy attachment while higher

percentiles represented more problems with attachment rivalled to peers. Those with high scores

on both attachment styles are assumed to have an insecure adult attachment orientation while

those who scored low are assumed to have a secure adult attachment orientation (Brennan et al.,

1998). In the present study, we estimated internal consistency for the ECR-S score by calculating

coefficient alpha. Coefficient alpha for the anxiety subscale in our sample was 0.79, which is in

the adequate range. The avoidance subscale provided a coefficient alpha of 0.83, which is in the

good range.

Levenson's Locus of Control Scale

Finally, participants took the Levenson's Locus of Control Scale (Levenson, 1974) (see

Appendix F). This scale was chosen as it includes three subscales: internal locus of control,

powerful others, and chance. Having a high score in powerful others indicated belief that your

life is controlled by others (external locus of control). This is a 24-item scale in which

participants responded: strongly disagree, disagree somewhat, slightly disagree, slightly agree,

agree somewhat and strongly agree. Adding up certain items correlated to each of the subscales (for example, a higher score on questions 1, 4, 5, 9, 18, 19, 21, and 23 indicates internal locus of control).

In the present study, we estimated internal consistency for the LOC score by calculating coefficient alpha for the subscales of internal locus of control, powerful others, and chance. Coefficient alpha for the internal locus of control subscale in our sample was 0.81, which is in the good range. The powerful others subscale provided a coefficient alpha of 0.86, which is in the good range. The chance subscale provided a coefficient alpha of 0.87, which is in the good range.

Procedure

The participants were tested during an online session using Amazon's Mechanical Turk (Mturk). Those who signed up for the study clicked on a link that took them to a Qualtrics survey. There, they reviewed a consent form (see Appendix A). As part of the online consent form, they were provided additional information on inclusion/exclusion criteria, study time requirements, study procedures, and rules for compensation. They were informed that they are permitted to discontinue their participation at any time (though this may result in them not being compensated).

Those who provided consent (by clicking continue) were enrolled in the study. They then completed a short demographic questionnaire will follow (see Appendix B), the Rosenberg self-esteem scale (see Appendix C), the Inventory of Interpersonal Ambivalence-9 (see Appendix D), the Experience in Close Relationship Scale (see Appendix E), Levenson's Locus of Control Scale (see Appendix F), Child's Perception of Interparental Conflict Scale (see Appendix G) and an online version of the Selves-Questionnaire (see Appendix H). Once the study was completed

the participants were thanked for participating. They obtained compensation through Mturk, and

all stored data was encrypted to conserve participant confidentiality.

Hypotheses

Based on prior research, I put forward the following hypotheses:

1) COD will be associated with lower levels of self-esteem

   1a) Average RSE scores will be lower for the COD group relative to the intact family

   group.

   1b) Average levels of self-discrepancies will be larger for the COD group relative to the

   intact family group.

2) COD will be associated with less attachment security.

   2a) Average levels of attachment ambivalence will be higher in the COD group relative

   to the intact family group.

   2b) Average levels of attachment anxiety will be higher in the COD group relative to the

   intact family group.

3) COD will be associated with external locus of control.

4) The following hypotheses are made specifically for the COD group

   a. CPIC will be inversely associated with self-esteem and positively associated with

      self-discrepancy.

   b. CPIC will be associated with attachment anxiety and attachment ambivalence.

   c. CPIC will be associated with internal locus of control.

Results

Hypothesis 1

Our first hypothesis was that young adults who are children of divorce (COD) would have lower levels of self-esteem than young adults whose parents have not divorced. We split this Hypothesis into two components and report results for each below.

We first asserted that those in the COD condition would self-report lower self-esteem relative to those in the non-divorced condition. To determine if young adults in the COD group have higher self-reported self-esteem relative to young adults whose parents are still married, we conducted an independent-samples t-test. Parental status (Divorced vs. Non-divorced) was entered for group. The dependent variable was the RSE score. Young adults in the COD condition had a mean of 2.92 ($SD = 0.77$) and the young adults in the non-divorced condition had a mean of 3.02 ($SD = 0.71$). As shown in table 2, difference was not statistically significant (t (220) = 0.99, $p = .16$; $d = .13$). In short, we failed to support this hypothesis.

We also examined this hypothesis using a more nuanced measure of self-esteem, a modified version of the selves-questionnaire. This measure has people list six qualities that describe their "ideal self." They then rate how much of each quality they currently possess. This produces a score in which lower scores indicate more of discrepancy between the current self and the ideal self (i.e., lower self-esteem) and higher scores indicate more agreement between the current self-view and the ideal self. We compared groups on this task using an independent t-test. Young adults in the COD condition had a mean of 3.15 ($SD = 1.51$) and the young adults in the non-divorced condition had a mean of 3.12 ($SD = 1.41$). As shown in table 2, this difference was not statistically significant (t (220) = 0.80, $p = .80$; $d = .02$). Thus, using the nuanced task also failed to support our hypothesis.

Hypothesis 2

Our second hypothesis was that young adults in the COD group would report less attachment security than young adults whose parents have not divorced. We split this hypothesis into two components and reported results for each below.

The first asserted that average levels of insecure attachment dimensions would be higher in the COD group relative to those in the non-divorced condition. To determine if young adults who are COD have higher levels of insecure attachment dimensions relative to those who are part of an intact family, we conducted independent t-tests. Results aligned with expectations. For attachment anxiety, young adults in the COD condition had a mean of 22.70 ($SD = 8.26$) and the young adults in the non-divorced condition had a mean of 20.23 ($SD = 7.80$). This difference was statistically significant ($t (219) = 2.29$, $p = 0.01$; $d = 0.31$). For attachment avoidance, young adults in the COD condition had a mean of 19.10 ($SD = 8.02$) and the young adults in the non-divorced condition had a mean of 16.62 ($SD = 7.18$). This difference was statistically significant ($t (218) = 2.41$, $p<0.01$; $d = 0.33$). For attachment ambivalence, young adults in the COD condition had a mean of 22.10 ($SD = 7.93$) and the young adults in the non-divorced condition had a mean of 18.91 ($SD = 8.32$). This difference was statistically significant ($t (216) = 2.91$, $p <$ .01; $d = .40$). Thus, as expected, individuals in the COD condition consistently reported lower levels of attachment security on all three of the major attachment dimensions (as shown in table 2). This is consistent with our expectation that exposure to parental divorce in childhood could impact adult romantic attachment status in adulthood.

Hypothesis 3

Our third hypothesis was that COD would be associated with more of an external locus of control. Levenson's locus of control measure was split into three different measures: internal locus of control, powerful others, and chance. Higher scores on powerful others and chance

scales indicate a higher level of external locus of control. To determine if young adults who are COD have higher levels of external locus of control relative to those who are part of an intact family, we conducted independent t-tests. For internal locus of control, young adults in the COD condition had a mean of 53.33 (SD = 5.50) and the young adults in the non-divorced condition had a mean of 54.35 (SD = 5.90). This difference was not statistically significant (t (218) = 1.32, p = 0.09; d = 0.18). For powerful others, young adults in the COD condition had a mean of 46.93 (SD = 7.68) and the young adults in the non-divorced condition had a mean of 46.10 (SD = 6.72). This difference was not statistically significant (t (217) = 0.86, p= 0.20; d = 0.12). For chance, young adults in the COD condition had a mean of 47.28 (SD = 7.28) and the young adults in the non-divorced condition had a mean of 46.46 (SD = 6.95). This difference was not statistically significant (t (220) = 0.87, p= 0.19; d = 0.12). Results did not align with expectations as both groups showed no significant differences in locus of control.

Hypothesis 4

In the fourth hypothesis had three parts. In the first we asserted that the CPIC will be inversely associated with self-esteem (in COD condition). To examine associations between self-esteem and perception of parental conflict, we examined correlations between the three CPIC factor scales and RSE self-esteem scores (correlations with CPIC subscale scores are shown in Table 3). As a reminder, higher scores on CPIC items indicate less perception of parental conflict. We found mixed support for our hypothesis. Self-esteem was not significantly associated with the conflict properties factor (r = .16, p = .16), but was significantly associated with the threat factor (r = .33, p <.001) and the self-blame factor (r = .38, p <.001). In the COD condition, those who engaged in less self-blame over conflict and perceived less threat from conflict were more likely to report higher self-esteem.

Like Hypothesis 1, we also tested this hypothesis using the ideal self-discrepancy score from the online modified selves- questionnaire. Higher scores on this measure indicate less discrepancy (i.e., higher self-esteem). We focused primarily on the Factor scores from the CPIC (correlations with CPIC subscale scores are shown in Table 3). We found mixed support for our hypothesis. Self-esteem was not significantly associated with the conflict properties factor ($r = -.12, p = .23$), but was significantly associated with the threat factor ($r = -.20, p = .04$) and the self-blame factor ($r = -.24, p = .01$). In short, the results using the online modified selves questionnaire mirrored those obtained using the RSE, only they had smaller overall effect sizes.

CPIC will be positively associated with insecure attachment (in COD condition)

In the second part of our fourth hypothesis, we asserted that the CPIC would be related to adult attachment status. To examine associations between attachment status and perception of parental conflict, we examined correlations between the three CPIC factor scales and the ECR-S scales. As a reminder, higher scores on CPIC items indicate less perception of parental conflict, while higher scores on the attachment dimensions indicate insecurity. We found mixed support for our hypothesis. Attachment anxiety was inversely associated with conflict properties factor ($r = -.29, p < .001$), the threat factor ($r = -.37, p < .001$) and the self-blame factor ($r = -.33, p < .001$). Attachment avoidance, however, was not significantly associated with the conflict properties factor ($r = -.15, p = .14$), but was inversely associated with the threat factor ($r = -.32, p < .001$) and the self-blame factor ($r = -.48, p < .001$). Thus, those who perceived themselves as threatened and to blame for parental conflict were more likely to have higher levels of both forms of attachment insecurity. However, perception of conflict properties (e.g., more frequent conflict; more intense conflict) was only associated with risk for attachment anxiety in the COD

condition. Correlations between attachment dimensions and CPIC subscales within the COD group are shown in Table 3.

In the third part of our hypothesis, we suggested that in the COD condition, CPIC would be associated with internal locus of control (ILOC). We found no support for this hypothesis. ILOC was not associated with any of the CPIC factors to a significant degree. However, the Powerful Others scale was associated with the threat perception factor ($r = -.25$, $p = .01$) and the self-blame factor ($r = -.33$, $p < .01$), indicating that those who perceived themselves as more to blame for parental conflict and more threatened by parental conflict were also more likely to feel that their lives were greatly influenced by an external locus of control. Additionally, the self-blame factor was inversely associated with the chance scale ($r = .29$, $p < .01$), indicating that those who saw themselves as more to blame for parental conflict were more likely to feel their lives were greatly impacted by an external locus of control.

Exploratory Results

In this section, we discuss some data analyses I conducted that did not have appropriate hypotheses. Because these analyses were done in a post-hoc fashion, the findings they produce should be interpreted with caution.

Perception of Parental Conflict

Though our primary interest was to examine if divorce impacts self-esteem, locus of control, and attachment status in early adulthood, we also included a measure of how the individual perceived their parent's managing conflicts to explore if this variable within the COD group was associated with other variables. Thus, we did not make explicit hypotheses regarding the COD group and the non-divorced group related to perception of parental conflict. Nonetheless, we ran a series of independent *t*-tests comparing the CPIC subscales and factor

scales between the two groups. As can be seen in Table 2, significant differences emerged

among several scales.

Significant differences emerged for all three factor scales. Note higher scores on factor

scales indicate perceptions of more adaptive parental conflict and lower scores indicate

perceptions of more problematic parental conflict. Young adults in the COD condition reported

more problematic conflict properties (e.g., hostility during conflicts; failures to resolve conflicts;

frequent conflicts) with a mean of 30.32 (SD = 8.67) relative to young adults in the non-divorced

condition (M = 39.50, SD = 9.81). This difference was statistically significant with a large effect

(t (216) = 7.29.86, p < .01; d = 0.99). Similar patterns emerged for the threat scale and for the

self-blame scale.

Exploration of the Online Version of the Modified Selves Method

Though it has been used in a previous study, few researchers have employed the online

version of the modified selves-questionnaire we utilized. As such, we examined associations

between this approach and the RSE. Using the full sample, we found a correlation of -.61 (p <

.001). Recall that higher scores on the RSE indicate higher levels of self-esteem, while higher

scores on the online modified selves-questionnaire indicate higher self-esteem. Thus, the

direction of results supports that validity of the online modified selves-questionnaire, the

magnitude of the results suggests that the two approaches are indeed measuring the construct in

slightly different ways.

We also explored what variables in our study best predicted self-discrepancy scores on

the online version of the modified selves-questionnaire. To do this, we ran a stepwise regression

with the self-discrepancy score from the online version of the modified selves-questionnaire as

the dependent variable. We entered the following as possible predictors: attachment anxiety,

attachment avoidance, attachment ambivalence, internal locus of control, and the three superordinate scales on the CPIC (Conflict Properties, Threat, and Self-Blame). We used a stepwise approach. The final model was significant ($R = .53$, $R2 = .28$, $F (2, 201) = 40.15$, $p < .001$) with two significant predictors: Attachment ambivalence (Standardized Beta = .42, $p < .001$) and internal locus of control (Standardized Beta = -.26, $p < .001$). Thus, participants who reported perceiving themselves as having less ambivalence about close relationships and greater ability to impact their environment and influence outcomes were more likely to view their current selves as similar to their ideal selves.

Discussion

This study had three aims. First, it pursued the notion that adult attachment status would be related to parental divorce. Prior research has linked differences in adult attachment to parental status (Evans & Bloom, 1996; Sprecher, Cate, & Levin, 1998; Brennen & Shaver, 1998; Summers, Forehand, Armistead, & Tannenbaum, 1998; Lewis, Feiring, & Rosenthal, 2000, as cited in Sirvanli-Ozen, 20). A secondary aim of this work was to examine if parental divorce had an impact on self-esteem and locus of control. No prior study has used a self-discrepancy approach to examine self-esteem in children of divorce. The final aim of this study was to examine how perceived conflict as a child impacted self-esteem, internal locus of control, and attachment status. Overall, we found attachment status to be associated with parental status in a manner that was consistent with prior work. Those who were children of divorce were more likely to endorse higher levels of insecure forms of adult attachment. Findings regarding to self-esteem, locus of control, and CPIC were mixed.

Attachment Status and CPIC

Individuals' attachment status in adulthood are impacted by many factors, including relationships with parents in childhood. When divorce leads to challenges and conflictual

interactions between children and parents, children are less likely to develop secure attachment with the parent (Beckwith, Cohen, & Hamilton, 1999, as cited in Sirvanli-Ozen, 2015). A child's attachment status with their parent has also shown to be a predictor of relationship quality in adulthood (Mikulincer & Shaver, 2008), which may have lead children of divorce to indicate less secure attachment status due to the distresses associated with divorce (Evans & Bloom, 1996; Sprecher, Cate, & Levin, 1998; Brennen & Shaver, 1998; Summers, Forehand, Armistead, & Tannenbaum, 1998; Lewis, Feiring, & Rosenthal, 2000, as cited in Sirvanli-Ozen, 2015). Hypothesis 2 of our study tested if all three insecure attachment dimensions (avoidance, anxiety, ambivalence) would be higher in the COD group relative to those in the non-divorced condition. Consistent with prior findings, those in the COD group reported higher scores on insecure attachment dimensions relative to those in the non-COD group.

While previous literature measured attachment status with other measures, our current study measured attachment status with the IIA-9 and ECR-S (short-form versions). This indicates that although different measures were used, similar outcomes were still found and further reinstates the notion that less secure attachment status may be associated with parental divorce. Attachment status in children of divorce has not been explored beyond self-report and would benefit from further analysis using longitudinal methods and other ways of assessing attachment (e.g., the Adult Attachment Interview).

While the impact of parental divorce on children has shown to impact attachment status, the degree of this impact is greater when parents show increased instances of anger, issues involving children, etc. (Walker & Ehrenberg, 1998). Young adults who feel a secure in their relationships report having accommodating and accepting parents while those who feel insecure in their relationships report having frequently conflicting and rejecting parents (Hayashi &

Strickland, 1998). Thus, how the child is impacted may be less about divorce and more about how parent's handle the situation that surrounds the divorce.

In our study, we measured if perception of interparental conflict as a child would be associated with insecure attachment, extending on prior studies by using two measures of attachment status (IIA-9; ECR-S) and a conflict scale originally adapted for children (CPIC). Mostly consistent with Hayashi and Strickland (1998) and Walker and Ehrenberg (1998), results from our retrospective study showed that increased perception of conflict was significantly associated with attachment anxiety in COD. Results also showed that those who felt threatened and engaged in self-blame as a child were more likely to be higher in both attachment anxiety, avoidance, and ambivalence. Thus, within this group, how respondents perceived parental conflicts was linked to how they attachment to others in adulthood. Blaming oneself for parental conflicts and feeling threatened by them appears to increase risk for all forms of attachment insecurity, which may lead to challenges in forming and maintaining close relationships with others. Interestingly, characterization of conflicts appears to have a more specific impact on attachment. Rather than resulting in more generalized insecurity, perceiving parental conflict as more hostile with less resolution results was linked to an adult attachment status involving greater fears of abandonment and preoccupation with relationships. Perhaps, observing frequent conflicts that involve high hostility and little resolution may lead individuals to be overly focused on the potential for loss in a relationship.

Self-Esteem and Locus of Control

Weaker child-parent relationships have been associated with lower levels of child self-esteem (Esmaeili et al., 2012), while higher self-esteem among children has been found to be associated with a stronger parent-child relationship (Mustonen et al., 2011). These effects were

shown to be persistent from kindergarten to 8th grade (Kim, 2011) and were also more

pronounced with increased divorce severity. Such studies suggests that some aspects of parental

divorce may continue to impact self-view over time. We, however, failed to find differences in

self-esteem as a function of divorce. There are several possible explanations for this failure to

find. For example, it is possible that adults' self-esteem is less contingent on their relationship

with their parents (relative to children's), which could account for differences between our study

and prior work in child populations. Alternatively, it is possible that differences in study

methods (e.g., retrospective approach) may account for differences in findings.

While we did not find differences in self-esteem between groups, our study explored the

relationship between CPIC and self-esteem. Although, a relationship did emerge between self-

blame, threat factors, and self-esteem. Thus, a child with higher self-esteem was less likely to

blame themselves for their parent's conflicts and challenges and was less likely to feel threatened

or unable to cope when their parents' conflict. Because we used both correlations and

retrospective methods, it is impossible to ascertain which variable is the cause and which is the

effect. For example, it is possible that children who had higher self-esteem at the time were less

likely to blame themselves. Alternatively, it is possible that those who did not blame themselves

for parental disagreement went on to develop better self-esteem. Further, it is possible that higher

self-esteem at the time of the study led contributed to recalling the parental conflict in a different

manner (i.e., those with more self-esteem recalled themselves as blaming themselves less for

parental conflicts when they were children). Regardless, it is noteworthy that self-esteem in our

sample was linked to CPIC factors that have a clear "self" component.

Self-esteem in prior literature has focused primarily on children while our current study

focused on adults. This may have been an area of discrepancy, as the emerging adults may have

overcome their prior lacking self-esteem. These may be an indication that long-term effects on self-esteem due to parental divorce are present in some ways but not in others. Previous studies have also included much larger sample sizes that have an impact on effect sizes. Future studies that could remediate this discrepancy would include having a larger sample size and possibly measure self-esteem longitudinally.

Prior research has not produced consistent findings on the effects of divorce on locus of control. Some studies report no difference in locus of control between those who have experienced parental divorce and those who have not (St-Yves et al., 1989). Other studies report higher external locus of control for COD (Beshrat et al., 2018), while others report higher internal locus of control (Kalter et al., 1984). Our hypothesis was that locus of control would be impacted by the quality of parental conflict surrounding parental divorce (as measured by the CPIC). Specifically, we anticipated that more problematic perceptions of parental conflicts would result in increased external locus of control. Our main results were in line St-Yves and colleagues (1989) as there was no significant differences between locus of control and parental status. Although, CPIC factors of self-blame and feeling threatened were significantly associated with external locus of control, indicating that parental conflict may not be a contributing factor to changes in locus of control.

Limitations and Future Directions

There are several limitations to the current study. As is the nature of self-report online studies, there was no assurance that participants were being thorough and thoughtful while completing the study. This resulted in 95 participants being omitted from the study as they did not properly follow the directions. Furthermore, the use of a restricted sample may have limited findings by lowering statistical power. Future research should include methods to ensure the

participants are valid for the study as well as attentive while completing the study (e.g., better attention and background checks). We also opted to use the short-form versions of the ECR and the IIA, which allow for less variation and have lower internal consistency. We recommend that future research utilize the full-length versions of these measures. Our proposed theories were theories of causation but were tested using correlations, which is not the most appropriate considering any confounding variables. For obvious reasons, it would be unethical to conduct true experiments on these questions. Still, this limits our ability to draw causal inferences.

Conclusion

This study provided mixed support for the theory that parental divorce contributes to lower self-esteem, an external locus of control, and insecure attachment in adulthood. There was a main effect for attachment status, suggesting that exposure to childhood divorce may increase risk for insecure attachment in adult relationships. However, there was no such effect for self-esteem or locus of control. The impacts of divorce on a child are likely mitigated or exacerbated by a number of factors. The present study suggests that perception of how parent's conflict is one factor that influences how experiencing childhood divorce will impact the individual in early adulthood. Children who experience a strong sense of threat and engage in self-blame appear to not only be more at risk for insecure attachment in adulthood, they are more likely to report lower levels of self-esteem. Conversely, those who experience less self-blame, less threat, and perceive their parents as able to resolve conflicts appear to be less at risk for self-esteem issues or insecure attachment. Most prior studies investigating adult attachment and self-esteem have primarily used self-report measures while our study also utilized self-discrepancy. Even though the findings from this study are similar to past research, changing the approach demonstrated relative similarity at the level of construct.

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Table 1. Sample Characteristics

	Non-COD (n = 116)	COD (n = 106)
Variable	N	N
Male	45.7%	49.1%
Female	53.4%	50.9%
Non-Binary	0.9%	0.9%
Ethnicity	N	N
White or Caucasian	62.7%	80.2%
Black or African American	12.1%	9.4%
Asian American or East Asian	7.8%	6.6%
Hispanic or Latino	7.8%	1.9%
Other or mixed	5.2%	1.9%

Non-COD average age = 27.22 SD = 2.71, Min = 21, Max = 30
COD average age = 27.10 SD = 2.60, Min = 21, Max = 30

Table 2. Descriptives of Scale Scores

	Non-COD		COD				
Scale	**M**	**SD**	**M**	**SD**	*t*	*p*	*d*
RSE (df=220)	3.02	0.71	2.92	0.77	0.99	0.16	0.13
Anxiety (df=219)	20.23	7.79	22.71	8.26	**2.29**	0.01	0.31
Avoidance (df=218)	16.62	7.18	19.10	8.02	**2.41**	<0.01	0.33
IIA (df=216)	18.91	8.33	22.14	7.99	**2.91**	<0.01	0.40
Internal LOC (df=218)	53.34	5.90	53.33	5.46	1.32	0.09	0.18
Powerful Others (df=217)	46.10	6.72	46.93	7.68	0.86	0.20	0.12
Chance (df=220)	46.46	6.95	47.28	7.28	0.87	0.19	0.12
Ideal Self Discrepancy	3.12	1.41	3.15	1.51	0.15	0.80	0.02
Scale		**M**	**SD**	**M**	**SD**	*t*	*p*	*d*
9 subscales (CPIC)								
Frequency (df=220)		10.38	2.89	8.02	2.55	**6.40**	<0.01	0.86
Intensity (df=218)		15.24	4.17	12.56	3.96	**4.88**	<0.01	0.66
Resolution(df=217)		13.96	3.52	9.79	3.09	**9.30**	<0.01	1.26
Content (df=220)		10.45	2.07	9.87	2.23	**2.01**	0.02	0.27
Perceived threat (df=219)		14.30	3.72	11.56	3.77	**5.43**	<0.01	0.73
Coping efficacy (df=219)		12.87	3.09	10.87	2.65	**5.15**	<0.01	0.69
Self-blame (df=218)		10.20	1.91	9.87	2.14	1.22	0.11	0.17
Triangulation (df=219)		11.77	2.97	9.86	2.75	**4.94**	<0.01	0.67
Stability (df=218)		9.71	2.42	7.05	2.04	**7.75**	<0.01	1.18

Scale	M	SD	M	SD	t	p	d
CPIC Factor scales							
Conflict properties(df=216)	39.50	9.81	30.32	8.67	**7.29**	<0.01	0.99
Threat (df=218)	27.18	6.40	22.47	5.72	**5.73**	<0.01	0.78
Self-blame (df= 218)	20.66	3.72	19.36	3.95	**1.78**	<.05	0.24

Note. Significant *t*-test values are presented in bold. Additionally, higher scores on the CPIC factor scales and subscales indicate more adaptive views of parental conflict, and lower scores indicate more problematic perceptions of parental conflict.

Table 3. Correlations between CPIC, RSE, Self-Discrepancy and indicators of attachment (COD)

| | | COD Condition (n = 106) | | | |
CPIC Scales	RSE Score	Self-Discrepancy	Attachment Anxiety	Attachment avoidance	Attachment Ambivalence
Frequency	0.14	-0.05	-.22*	-.14	-.39**
Intensity	0.16	-0.16	-.29**	-.14	-.42**
Resolution	0.13	-0.07	-.26**	-.12	-.29**
Content	.29**	-0.18	-.30**	-.41**	-.44**
Perceived Threat	.25**	-0.09	-.35**	-.31**	-.55**
Coping Efficacy	.38**	-.28**	-.31**	-.26**	-.44**
Self-Blame	.40**	-.25**	-.31**	-.45*	-.39**
Triangulation	.44**	-.22*	-.37**	-.29**	-.53**
Stability	0.18	-0.16	-.10	-.03	-.27**
CPIC Factors					
Conflict Prop Factor	0.16	-0.11	-.29**	-.15	-.41**
Threat Factor	.35**	-.20*	-.37**	-.32**	-.57**
Self-Blame Factor	.38**	-.24*	-.33**	-.48**	-.46**

** = $p < .01$; * = $p < .05$; t = $p < .10$

Appendix A

UNIVERSITY OF MICHIGAN-DEARBORN

Effects of Parental divorce on Attachment, Self-Esteem, and Locus of Control
Principal Investigator: Mahdi Daklallah, University of Michigan-Dearborn Faculty Advisors:
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Michigan-Dearborn.

You are invited to participate in a study focusing on how parental divorce may impact children's
attachment styles, self-esteem, and locus of control. Taking part in this research is voluntary. To
participate you must be at least 21 years old and no older than 30 years of age. You must also
know your parent's relationship status (together or divorced). You must also be capable of
reading English.

Participation involves answering questionnaires related to your self-esteem, attachment styles,
locus of control, and perception of your parent conflict. In addition, you will also be asked to
provide demographic information about yourself (e.g., age, severity of the divorce if there was
one). This study will take approximately 15-20 minutes. Your responses will be kept completely
confidential.

Benefits of the Research: While you may not directly benefit from your participation in this
study, others may benefit due to the increased knowledge researchers may gain from your
responses. You may also find this experience of participating in research interesting. Risks and
Discomforts: There are very few anticipated risks for this study. However, while researchers
have taken steps to minimize any risks, you may still experience some risks related to your
participation in this study. These risks may include possibly feeling bored or frustrated while
completing the questionnaires. It is also possible you may find self-report measures to be
intrusive. The questions that this study contains are not typically experienced as intrusive,
however they may be experienced as such to some. Please remember all your answers are
completely anonymous. However, if a question is too intrusive, you may elect to not answer the
question.

Compensation Procedures: As a part of your participation in Qualtrics, you agree to serve as a
research subject for this experiment. You will receive $1.50 for your participation in today's
study if you meet the compensation criteria. To be eligible for compensation you must 1) be over
the age of 21, 2) reside in the United States, 3) answer 90% or more of the questions, 4) correctly
answer 90% of the validity items, 5) pass a response consistency check, and 6) fulfill time
requirements. Participants who do not fulfill these requirements will not be compensated and
your data will not be used in the final data analysis. You may withdraw at any time from this
study without penalty; however, you will not be compensated. The data from those who
withdraw will not be used in the final data analysis.

Voluntary Nature of Participation: Participating in this study is completely voluntary. Even if
you decide to participate now, you may change your mind and stop at any time. You may choose

not to answer any survey question for any reason. If you decide to withdraw early, any data you have provided will be deleted and/or destroyed and will not be used in any way within this study.

We will protect the confidentiality of your research records by storing the data you provide in a private survey, of which only the researcher has access. At the end of this project, we will keep your data and may use it for future analysis. We plan to publish or present the research of this study but will not include any identifying information and will only describe data at the group level. There are some reasons why people other than the researchers may need to see the information you provided as part of the study. This includes organizations responsible for making sure the research is done safely and properly, such as the University of Michigan Health Sciences and Behavioral Sciences IRB.

Contacting the Study Team: If you have any questions about this research or would like to learn the findings of this study, you may contact rhymes@umich.edu or csiefert@umich.edu. If you have questions regarding your rights as a research participant, or wish to obtain information, ask questions, or discuss concerns with someone other than the researcher(s), you may contact Office of Research and Sponsored Programs at (313) 593-5468. Written questions should be directed to 2066 IAVS, University of Michigan-Dearborn, Evergreen Rd., Dearborn, MI 48128-2406. As part of their review, the University of Michigan Institutional Review Board has determined that this study is no more than minimal risk and exempt from on-going IRB oversight.

Thank you for considering participation in this study. If you DO NOT agree to participate in this study, please close the window and exit out of the page. If you'd like to participate, click the button below to continue.

Appendix B

Demographic form (divorced condition)

1. Please enter your age below _____

2. Please enter how you describe your gender identity in the space below _____

3. Please enter how you describe your ethnicity in the space below _____

4. What age were you when your parents divorced? _____

5. Please rate the degree of parental conflict during the divorce process on a scale of 0 (little

    to no conflict) to 10 (severe conflict)?

6. Did your parents argue over money? _____

7. Who received custody of you after the divorce?

    o   Mother was given full custody

    o   Father was given fully custody

    o   Mother was given primary custody (more than half)

    o   Father was given primary custody (more than half)

    o   Custody was shared equally

    o   Other (insert text)

8. Did your father remarry? Yes or No

9. Did your mother remarry? Yes or No

10. Please rate the degree of parental conflict you were exposed to during your childhood on

    a scale of 0 (little to no conflict) to 10 (severe conflict)?

11. Please rate the degree you feel your parent's divorce has impacted your personal

    relationships as an adult on a scale of 0 (no impact) to 10 (severe impact).

12. Are you currently in a romantic relationship?

  o No, I'm single

  o I'm in a dating relationship, but it's not serious

  o I'm in a serious romantic relationship, but I am not married

  o I'm married

Demographic form (non-divorced condition)

1. Please enter your age below _____

2. Please enter how you describe your gender identity in the space below _____

3. Please enter how you describe your ethnicity in the space below _____

4. Please rate the degree of parental conflict you were exposed to during your childhood on a scale of 0 (little to no conflict) to 10 (severe conflict)?

5. Please rate the degree you feel your parent's divorce has impacted your personal relationships as an adult on a scale of 0 (no impact) to 10 (severe impact).

13. Are you currently in a romantic relationship?

  o No, I'm single

  o I'm in a dating relationship, but it's not serious

  o I'm in a serious romantic relationship, but I am not married

  o I'm married

Appendix C

Rosenberg self-esteem scale

Below is a list of statements dealing with your general feelings about yourself. Please indicate

how strongly you agree or disagree with each statement. Respond with either Strongly Agree,

Agree, Disagree, or Strongly Disagree.

1. On the whole, I am satisfied with myself.

2. At times I think I am no good at all.

3. I feel that I have a number of good qualities

4. I am able to do things as well as most other people.

5. I feel I do not have much to be proud of.

6. I certainly feel useless at times.

7. I feel that I'm a person of worth, at least on an equal plane with others.

8. I wish I could have more respect for myself.

9. All in all, I am inclined to feel that I am a failure.

10. I take a positive attitude toward myself.

Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points,

"Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a

continuous scale. Higher scores indicate higher self-esteem.

Appendix D

The IIA-9

Instructions: Below are a series of statements; most include statements about two things within a single sentence. Please rate each statement based on how "true" the statement is for you. You should rate each statement based on the ENTIRE statement. Many statements contain more than one idea. If *either* idea is completely false for you, you should rate the statement as "False, Not True".

		False, Not True	Slightly True	Mainly True	Very True
1	I want to talk about my feelings with others, but I find that I keep my feelings bottled up inside.	F	ST	MT	VT
2	I'd like to form connections with others, but I find myself withdrawing before a connection is made.	F	ST	MT	VT
3	I want to depend on others, but I don't because I fear others will let me down if I rely on them.	F	ST	MT	VT
4	I have very mixed feelings about connecting with others.	F	ST	MT	VT
5	I want to have close relationships; at the same time, the idea of letting others into my life is very scary.	F	ST	MT	VT
6	I'd like closeness with others, but something holds me back from putting myself out there.	F	ST	MT	VT
7	I believe I need others, but I avoid close relationships because I think people will ultimately let me down.	F	ST	MT	VT
8	I've generally kept others at a distance despite knowing I want close relationships.	F	ST	MT	VT

9	I have a lot of strong positive and strong negative feelings about close relationships.	F	ST	MT	VT

Scoring

The IIA-9 produces a single overall score for interpersonal ambivalence. No items are reverse scored. Convert ratings to numbers as follows: F = 1; ST = 2; MT = 3; VT = 4. I encourage those who use the scale to calculate a total score by averaging responses across items (as opposed to summing them). This renders scores obtained with the full- and short- forms more comparable.

Appendix E

ECR-S

Instruction: The following statements concern how people feel in romantic relationships. We are interested in how you ***generally experience relationships***, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. For example, if you feel that the statement does not apply to you at all, then you would mark 1. Mark your answer using the following rating scale:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

_____1. It helps to turn to my romantic partner in times of need.

_____2. I need a lot of reassurance that I am loved by my partner.

_____3. I want to get close to my partner, but I keep pulling back.

_____4. I find that my partner(s) don't want to get as close as I would like.

_____5. I turn to my partner for many things, including comfort and reassurance.

_____6. My desire to be very close sometimes scares people away.

_____7. I try to avoid getting too close to my partner.

_____8. I do *NOT* often worry about being abandoned.

_____9. I usually discuss my problems and concerns with my partner.

_____10. I get frustrated if romantic partners are not available when I need them.

_____11. I am nervous when partners get too close to me.

_____12. I worry that romantic partners won't care about me as much as I care

about them.

Appendix F

Levenson's Locus of Control Scale

For each of the following statements, indicate the extent to which you agree or disagree by writing in the appropriate number.

–3 = strongly disagree –2 = disagree somewhat –1 = slightly disagree +1 = slightly agree
+2 = agree somewhat +3 = strongly agree

1. Whether or not I get to be a leader depends mostly on my ability.
2. To a great extent my life is controlled by accidental happenings.
3. I feel like what happens in my life is mostly determined by powerful people.
4. Whether or not I get into a car accident depends mostly on how good a driver I am.
5. When I make plans, I am almost certain to make them work.
6. Often there is no chance of protecting my personal interests from bad luck.
7. When I get what I want, it's usually because I'm lucky.
8. Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.
9. How many friends I have depends on how nice a person I am.
10. I have often found that what is going to happen will happen.
11. My life is chiefly controlled by powerful others.
12. Whether or not I get into a car accident is mostly a matter of luck.
13. People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.
14. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.
15. Getting what I want requires pleasing those people above me.
16. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.
17. If important people were to decide they didn't like me, I probably wouldn't make many friends.
18. I can pretty much determine what will happen in my life.
19. I am usually able to protect my personal interests.
20. Whether or not I get into a car accident depends mostly on the other driver.
21. When I get what I want, it's usually because I worked hard for it.
22. In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.
23. My life is determined by my own actions.
24. It's chiefly a matter of fate whether or not I have a few friends or many friends.

Scoring

Total your responses for the items listed for each of the three parts of the scale; add +24 to each of your three totals.

Internal Locus of Control: Total your responses for items 1, 4, 5, 9, 18, 19, 21, and 23; then add +24. Score: _____

Powerful Others: Total your responses for items 3, 8, 11, 13, 15, 17, 20, and 22; then add +24. Score: _____

Chance: Total your responses for items 2, 6, 7, 10, 12, 14, 16, and 24; then add +24. Score: _____

Your scores should be between 0 and 48. A high rating on the Internal Locus of Control scale indicates that you have a strong internal locus of control. An internal locus of control can be helpful for successful behavior change.

High ratings on either the Powerful Others scale, or the Chance scale indicate a strong external locus of control. If you rate high on the Powerful Others scale, you typically believe that your fate is controlled by other people; if you rate high on the Chance scale, you believe your fate is controlled by chance.

Appendix G

Children's Perception of Interparental Conflict Scale

In every family there are times when the parents don't get along. Below are some things that kids sometimes think or feel when their parents have arguments or disagreements. We would like you to tell us what you think or feel when your parents argue or disagree by answering each of the sentences below.

T = TRUE ST = SORT OF TRUE F = FALSE

1. I never see my parents arguing or disagreeing.
2. When my parents have an argument, they usually work it out
3. My parents often get into arguments about things I do at school
4. When my parents argue it's because one of them just had a bad day
5. My parents get really mad when they argue
6. When my parents argue I can do something to make myself feel better
7. I get scared when my parents argue
8. I feel caught in the middle when my parents argue
9. I 'm not to blame when my parents have arguments
10. They may not think I know it, but my parents argue or disagree a lot
11. Even after my parents stop arguing they stay mad at each other
12. When my parents argue usually it has to do with their own problems
13. My parents have arguments because they are not happy together
14. When my parents have a disagreement, they discuss it quietly
15. I don't know what to do when my parents have arguments
16. My parents are often mean to each other even when I'm around
17. When my parents argue I worry about what will happen to me
18. I don't feel like I have to take sides when my parents have a disagreement
19. It's usually my fault when my parents argue I often see or hear my parents arguing
20. When my parents disagree about something, they usually come up with a solution
21. My parents' arguments are usually about me
22. The reasons my parents argue never change
23. When my parents have an argument, they say mean things to each other
24. When my parents argue or disagree, I can usually help make things better
25. When my parents argue I'm afraid that something bad will happen
26. My mom wants me to be on her side when she and my dad argue Even if they don't say it,
27. I know I'm to blame when my parents argue
28. My parents hardly ever argue
29. When my parents argue they usually make up right away
30. My parents usually argue or disagree because of things that I do
31. My parents argue because they don't really love each other
32. When my parents have an argument, they yell at each other
33. When my parents argue there's nothing I can do to stop them
34. When my parents argue I worry that one of them will get hurt
35. I feel like I have to take sides when my parents have an argument

36. My parents often nag and complain about each other around the house
37. My parents hardly ever yell when they have a disagreement
38. My parents often get into arguments when I do something wrong
39. My parents have broken or thrown things during an argument
40. After my parents stop arguing, they are friendly towards each other
41. When my parents argue I'm afraid that they will yell at me too
42. My parents blame me when they have arguments
43. My dad wants me to be on his side when he and my mom argue
44. My parents have pushed or shoved each other during an argument
45. When my parents argue or disagree there's nothing I can do to make myself feel better
46. When my parents argue I worry that they might get divorced
47. My parents still act mean after they have had an argument
48. My parents have arguments because they don't know how to get
49. Usually, it's not my fault when my parents have arguments
50. When my parents argue they don't listen to anything I say

Appendix H

Self-discrepancy

In this section, you will list attributes related to your IDEAL self. Your ideal self is the kind of person you'd really like to be, and it is defined by the personality traits you would ideally like to have. It's not necessary that you actually have these traits now, only that you believe you want to have them. You would just like to possess these traits, or you see them as an ultimate goal for yourself.

1. Type in the FIRST word that describes what your ideal self would be like. _____
2. Type in the SECOND word that describes what your ideal self would be like. _____
3. Type in the THIRD word that describes what your ideal self would be like. _____
4. Type in the FOURTH word that describes what your ideal self would be like. _____
5. Type in the FIFTH word that describes what your ideal self would be like. _____
6. Type in the SIXTH word that describes what your ideal self would be like. _____
7. Type in the SEVENTH word that describes what your ideal self would be like. _____

Now, looking at the 7 traits you used to describe your IDEAL self, rate how similar you think that you presently are to each trait (i.e., how you feel that you exemplify each trait TODAY).

Word 1-7 (I am just like this trait, I am like this trait, I am somewhat like this trait, This trait is neither like me nor unlike me, I am a somewhat unlike this trait, I am unlike this trait, I am the opposite of this trait)

In this section, you will list attributes related to your OUGHT self. Your ought self is the kind of person you believe you have the duty or obligation to be. It's defined by the personality traits you think you ought to possess, or feel obligated to possess. It's not necessary that you actually have these traits now, only that you believe you ought to have them.

1. Type in the FIRST word that describes what your ought self would be like. _____
2. Type in the SECOND word that describes what your ought self would be like. _____
3. Type in the THIRD word that describes what your ought self would be like. _____
4. Type in the FOURTH word that describes what your ought self would be like. _____
5. Type in the FIFTH word that describes what your ought self would be like. _____
6. Type in the SIXTH word that describes what your ought self would be like. _____
7. Type in the SEVENTH word that describes what your ought self would be like. _____

Now, looking at the 7 traits you used to describe your OUGHT self, rate how similar you think that you presently are to each trait (i.e., how you feel that you exemplify each trait TODAY).

Word 1-7 (I am just like this trait, I am like this trait, I am somewhat like this trait, This trait is neither like me nor unlike me, I am a somewhat unlike this trait, I am unlike this trait, I am the opposite of this trait)