

RESEARCH ARTICLE

Parental Divorce and Attitudes and Feelings toward Marriage and Divorce in Emerging Adulthood: New Insights from a Multiway-Frequency Analysis

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Experiencing parental divorce can exert long-term consequences on children's attitudes toward marriage and divorce. Participants' opinions on marriage and divorce were qualitatively coded and two themes selected based on Willoughby's theoretical framework. Multiway frequency analyses (MFA) were used to investigate associations between empirically based factors (derived from previous empirical studies) and participants' endorsement of the two themes. Four hundred and forty six participants between 18 and 25 years-old, including 217 participants from divorced households, were interviewed. Young adults' optimism toward marital relationships was related to more proximal factors and a lesser number of factors than young adults' positive attitude toward divorce. Religious affiliation and parental conflict stood out as important factors. Recommendations are offered for future research.

Keywords: marriage; divorce; young adults; parental divorce; multiway frequency analysis; attitudes

The first Divorce Act in 1968 introduced 'no fault' divorces across Canada, thereby allowing marriage dissolution without proof of 'wrongdoing' by one of the parties. Divorce rates have since stabilized, yet, it is expected that almost 40% marriages contracted in 2008 in Canada will end in divorce in the following twenty-five years (Milan, 2013). While the majority of children of divorce fare as well as their counterparts from intact families in terms of general functioning (e.g., Kelly & Emery, 2003), they often experience delayed or ' sleeper' effects, or in other words effects at a later stage in their development, as they engage in romantic relationships and form their own families (Amato & DeBoer, 2001; Li, 2014).

Despite the proliferation of studies trying to explain the formation of attitudes toward marriage and divorce, a consistent theoretical model has been lacking (Li, 2014; Willoughby, Hall, & Luczak, 2015). Social learning theory, family system theories, and ecological theories have all been adapted at one point or another to account for the ways in which parental experiences and attitudes could be transmitted to offspring but authors articulate and use these theories differently (Li, 2014). A part of the difficulty in explaining attitudes toward marriage and divorce might lie in the variety of beliefs and attitudes held by participants. To address this issue, Willoughby

et al. (2015) created a marital paradigm framework to serve as a conceptual guideline for future research on attitudes toward marriage. In their framework, attitudes toward marriage are divided into two broad categories which contain three sub-categories: beliefs about (a) getting married (marital timing, marital salience, and marital context), and (b) being married (marital processes, marital permanence and marital centrality). Marital permanence, which is similar to concepts used in the parental divorce literature, refers to the individuals' beliefs around the longevity and stability of marital relationships (Willoughby et al., 2015). According to Jensen, Willoughby, Holman, Busby, and Shafer (2014), family of origin and attachment style in particular can inform young adults' attitudes toward marital permanence.

Parental Divorce and Offspring's Romantic Relationship Outcomes

Previous research on relationship outcomes and attitudes toward marriage and divorce complements and confirms Jensen et al's (2014) findings. The "intergenerational transmission of divorce," one of the strongest and most replicated findings in the early divorce literature, refers to the higher likelihood for children from divorced families to experience divorce in their own marriages, compared to those raised in intact families (e.g., Amato & DeBoer, 2001; Ross & Mirowsky, 1999). Individuals from divorced families are more likely to marry partners who themselves experienced parental divorce, and the latter's unions are three times more likely to end in divorce, compared to marriages of children from intact families

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(Wolfinger, 2003a). Studies have highlighted several factors which influence children's experiences of parental divorce.

First, the number of transitions (re-marriages and second divorces) following the biological parents' divorce heightens the risk for poor adjustment (Kelly & Emery, 2003) and later divorce, and is often associated with unstable alternative caretakers (step-parents), changes in socio-economic status, and a generally more unstable family life (Wolfinger, 2000). Second, exposure to continuing conflict between parents is a similarly robust negative influence that partially accounts for the difficulties in romantic relationships among children of divorce (Cui & Fincham, 2010). Research concerning adult children of divorce's entry into marriage has yielded less consistent results.

Parental divorce has been associated with the children's earlier marriage (Ross & Mirowsky, 1999), their later marriage and earlier cohabitation (Cui, Wickrama, Lorenz, & Conger, 2011), or a curvilinear relationship with children of divorce getting married before their mid-twenties or much later than children from intact families (Wolfinger, 2003b). Participants from single-parent families after divorce are more likely to cohabit and never marry as adults (Valle & Tillman, 2014). Sociological changes, such as the wider acceptance and use of cohabitation between the 1980s and the 2000s, might account for some of the discrepancies among studies (Cui et al., 2011).

From the existing literature on marriage's entry and dissolution, some environmental—as opposed to individual—characteristics stand out: the number of subsequent transitions experienced by the child (e.g., remarriage of parents; Kelly & Emery, 2003), the level of conflict in parents' marriage (Cui & Fincham, 2010), and custody by a single parent (Valle & Tillman, 2014). These environmental factors are consistent with social learning theories about the formation of attitudes toward marriage, whereby children are thought to develop their own attitudes by witnessing their parents' interactions and being raised within specific family structures or social norms (Li, 2014).

Parental Divorce and Attitudes of Offspring toward Divorce and Marriage

Research on attitudes of offspring towards marital permanence also testified to the importance of family characteristics and structures in explaining young adults' attitudes toward marriage (Li, 2014). Young adulthood is an important period when individuals are able to explore intimacy and sexuality (Arnett, 2000), as well as to test the assumptions or attitudes they might hold regarding romantic relationships. The curvilinear relationship between marriage entry and parental divorce peaks around participants' 20th birthday and thus provides further evidence of the developmental importance of this period (Wolfinger, 2005). After witnessing their parents' relationship during their childhood years and then experiencing their first romantic relationships, young adults are likely to start thinking about marriage and long-term relationships.

Overall, young adults from intact families hold significantly more positive attitudes toward marriage than children of divorce, although the significance remains small and might not be meaningful (Yu & Adler-Baeder, 2007). Furthermore, the research supports a robust, yet non-linear association between parental divorce and more favourable attitudes toward divorce, with young adults from divorced families being three times more likely to think positively about divorce than young adults from intact families (Amato & DeBoer, 2001). Some environmental factors can partially explain those findings.

Attitudes and experiences within the family.

Previous research found family transitions and parental conflict to be correlated with attitudes toward divorce and marriage. Family transitions hold the potential to change young adults' attitudes. Indeed, a study spanning 31 years and two generations provides support for the association between parental remarriage and more favourable views toward divorce in children (Cunningham & Thornton, 2005). More specifically, the characteristics of the biological parents' romantic relationship are no longer predictive of the young adults' attitudes toward marriage when the characteristics of their parents' remarriage are accounted for (Yu & Adler-Baeder, 2007). Thus, parents' romantic experiences after parental divorce could be more influential to children than the biological parents' romantic relationship: highly successful second marriage could restore beliefs in lasting romantic relationships, while successive divorces could potentially reinforce negative attitudes toward marriage. Another key factor identified in the literature on parental divorce and young adults' romantic relationships is inter-parental conflict.

On one hand, there is evidence for both direct and indirect influence of inter-parental conflict on children's attitudes toward marriage and divorce, with children from divorced parents being more likely to consider divorce a viable alternative (e.g., Cui et al., 2011; Wolfinger, 2005). On the other hand, inter-parental conflict influenced only children's behaviour while parental divorce influenced children's attitudes (e.g., Cui & Fincham, 2010). No consensus has yet emerged about the association between inter-parental conflict and attitudes toward marriage. In addition, birth order seems to play a role in attitudes toward romantic relationships' permanence through the differential exposure to parental conflict of older and younger siblings. Indeed, older siblings are usually more exposed to parental conflict and as a result tend to doubt the stability of marriage and romantic relationships (Roth, Harkins, & Lauren 2014). Nevertheless, the family also functions within specific groups and norms, and researchers have tried to understand the importance of other factors such as race, gender or religion.

Attitudes and social influences. Several studies have reported that associations between parental divorce and young adults' attitudes in romantic relationships remain statistically significant even after controlling for race, socioeconomic status and gender (Wolfinger, 2005). However, religion has received surprisingly little focus in its consideration relative to parental divorce, despite repeated calls

(e.g., Li, 2014) and the relatively high endorsement of religious affiliation in many countries. Indeed, only 19% of Canadians who were 15 years-old or older reported having no religion affiliation and 32% attended religious services at least one time per month in 2004 (Clark & Schellenberg, 2006). When studied, religious affiliation was associated with higher positive attitudes toward marriage and commitment, with Christian affiliation accounting for up to 31% of the variance and 48% when combined with attachment (e.g., Mosko & Pistole, 2010). In addition to its direct influence on expectations for commitment, religious affiliation can exert more covert influences.

In a 12-year longitudinal study, parents' religiosity significantly predicted offspring's attitudes toward divorce, and its influence was mediated by offspring's religiosity and parents' attitude toward divorce (Kapinus & Pellerin, 2008). Furthermore, parental divorce carries the potential for disrupting offspring's religious beliefs and experiences on several dimensions, such as God image, religious attendance, skepticism towards the parents' faith, doubts about God or attendance of religious services (Ellison, Walker, Glenn, & Marquardt, 2011). With only one-fifth of Canadians reporting no religious affiliation, and in light of the relation between religious affiliation and attitudes toward marriage and divorce, religious affiliation appears to be an understudied factor in the divorce literature.

Attitudes and attachment. A wealth of research on both parental divorce and romantic relationships focuses on attachment theory. Attachment patterns develop through the caregiver-child relationships, and allow for the formation of relational schemas through experience. Internalized early attachment experiences provide a framework for future relationships, influencing expectations toward strangers and close others (Bowlby & Ainsworth, 1991). Attachment patterns can be divided into four main types: secure, avoidant, anxious and disorganized, or seen as a continuum on two dimensions: anxiety and avoidance (Bartholomew & Horowitz, 1991).

Mikulincer (2006) notes adult romantic relationships are characterized by the involvement of the attachment, the caregiving, and the sexual behaviour systems. Secure individuals are more attuned to their partners' needs, more likely to trust and to hold positive views of their partners, and to experience more fulfilling relationships (Mikulincer, 2006). Attachment is also associated with assessment of commitment benefits. Indeed, anxious attachment is correlated with both more awareness of the benefits of the romantic relationship and the costs for its dissolution, while avoidant attachment is correlated with less awareness of the positive aspects of the relationship (Dandurand, Bouaziz, & Lafontaine, 2003).

In the marital paradigm literature, attachment is more predictive of marital permanence or desirability than family of origin's characteristics (Jensen et al., 2014). Parental divorce holds the potential to disturb those early bonds and change later attachment patterns with the biological parents, by influencing or altering the young adults' internal working models, but its impact on adult romantic attachment is yet unclear (Sirvanli-Ozen, 2005).

The Current Study

The current study endeavours to: (a) simultaneously investigate the relative strengths of previously identified factors, such as transitions, attachment, parental divorce, and living with a single parent on young adults' perspectives on marriage and divorce; (b) to examine the pattern of interactions among these factors including potentially bidirectional interactions; (c) to bring additional evidence to determine the role of inter-parental conflict with regards to attitudes; and (d) to include religious affiliation to provide additional grounds for its inclusion or exclusion in future studies.

To do so, we decided to use an under-utilized but well-suited statistical technique: multiway frequency analysis (MFA), also considered a log linear analysis. While usual techniques rely on independent and dependent variables, bidirectional relations between the variables are likely and are usually not accounted for. One example of bidirectional relations could be that attitudes influence, and are influenced by, perception of parental conflicts or activation of certain attachment models over others (especially if the young adult developed different attachment patterns with the various caretakers during family transitions). MFA works best to study association structures in categorical data (Agresti, 2007) and makes no assumptions in terms of population distribution, directionality or linearity (Tabachnick & Fidell, 2012). MFA offers better screening procedures than logistic regression (Tabachnick & Fidell, 2012) and was thus selected for this exploratory study. Relying on categorical data will limit the generalizability of our findings, yet, using a different statistical technique which does not base itself on the usual independent and dependent variable distinction can complement the existing literature.

The current study focuses on young adults, who are in a critical developmental stage for future romantic relationship functioning. The relations among attitudes about marriage and divorce, experience of parental divorce, attachment styles, and religious affiliation have not yet been considered simultaneously in the same sample while also allowing for bidirectional influences. MFA is useful to identify which associations best explain the data, and help create models explaining the data with the least number of associations and factors. We hypothesize, that significant partial associations (i.e., lowest number of associations best explaining the data) will include:

1. Two-way associations between attitudes and feelings, parental divorce and attachment, parental divorce and attitudes and/or feelings, attachment and attitudes and/or feelings, current religious affiliation and attitudes and/or feelings.
2. The absence of parental conflict given the mixed findings in the literature, which seems to suggest that parental conflict is more linked to behaviours in romantic relationships than attitudes.

We will not make a hypothesis regarding significant three-way or higher-level associations. It is impossible to know based on the literature whether associations between

more than two variables will describe more accurately the data than associations between two variables or single variables.

Method

Sample

The study utilized the "Young Adult Study" dataset (Ehrenberg, Perrin, & Bush, 2009). The original sample consisted of 537 young adults attending secondary school, college or university and a minority reporting not being enrolled at school (10.4%). Participants who were younger than 18 years-old or older than 26 years-old, who reported the death of a parent (20 participants, 3.7%), suggesting loss experiences not of relevance to the current study, and those with missing data were excluded, to comprise a final sample of 446 participants.

Participants ranged from 18.08 to 25.92 years ($M = 20.38$; $SD = 1.96$); included men (49.8%) and women (50.2%); those raised in intact (51.3%) and divorced (48.7%) families. Of those reporting their parents' divorces, 65.9% experienced more than two family transitions. Eighteen participants endorsed upper-class (4%), 268 upper-middle-class (60.1%), 97 lower-middle class (21.7%), and 62 lower class (13.9%) family backgrounds. Participants reported nationalities and cultural backgrounds typical for the geographic location: more than 90% identified nationally as Canadian, but more than 30% reported coming from a Western European, Asian, East-Indian or other ethnic background. More than half of the participants reported being raised in a religious family and 35.9% endorsed a current religious affiliation.

In terms of relationship functioning, 41% of participants reported current involvement in a serious romantic relationship, 6.1% in a casual dating relationship with one person, and 6.1% were dating more than one person. Sixty participants (13.2%) had never been involved in a romantic relationship.

Procedure

The original Young Adult Study was approved by an institutional Human Ethics Board Committee and complied with APA's ethical standards (Ehrenberg et al., 2009). During a 1.5-hour individual session, individuals were interviewed regarding demographics, family of origin's structure and functioning, their attitudes and relationship history, information regarding the parental divorce (if applicable) and characteristics of their parents' romantic relationships. Following the interview, participants completed self-report questionnaires.

Measures

Structural factors: parental divorce, living with single parent, family transitions. Consistent with MFA procedures, dichotomous variables were created to reflect the biological parents' romantic relationship status (0 = *intact*, 1 = *divorced*; parents' status), whether participants ever lived in a single-parent household (1 = *no*, 2 = *yes*; single parent), whether they experienced numerous family transitions (1 = *2 or less*; 2 = *3 or more*; biological parents' divorce, parent's remarriage or remarried parent) and

current religious affiliation (0 = *yes*, 1 = *no*; religious affiliation). Despite differences in religious affiliations, around 85% of those reporting one referenced a major monotheist religion.

Attachment style. The Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) is a well-researched self-report measure of attachment style, that converges with other attachment measures, such as semi-structured attachment interviews and friends' ratings of attachment style (Bartholomew & Horowitz, 1991), Hazan-Shaver's attachment measure (Bartholomew & Shaver, 1998), and the Experiences in Close Relationships (Sibley, Fischer, & Liu, 2005).

In this study participants were asked to select from the RQ's descriptions of four specific attachment style—secure, preoccupied, fearful, or dismissive—the one that best described them. While the original RQ associated 7-point Likert scales to each attachment style description, this was found to show low test-retest reliability (Ravitz, Maunder, Hunter, Sthankiya, & Lancee, 2010). The current study asked participants to select which attachment style best described them. In keeping with MFA procedures, we coded the participants' attachment style dichotomously (1 = *secure*; 2 = *insecure*; preoccupied, fearful and dismissive attachment styles were coded as insecure).

Parental conflict. Participants rated the level of parental conflict they experienced while their parents were married (divorced families) or while they were growing up (intact families) on a 5-point Likert scale (1 = *no conflict* to 5 = *lots of conflict*). To meet MFA requirements, a dichotomous high parental conflict variable was established to reflect 4- or 5-point endorsements on the Likert scale (1 = *no*; 2 = *yes*).

Attitudes toward divorce and marriage. During their individual interviews, participants were asked two open-ended questions: "What is your opinion about marriage?" and "What is your opinion toward divorce?" Grounded theory qualitative methods (Charmaz, 2006) were used to reveal reliably codeable themes (average alpha of 0.85) to encompass all participant responses: eight themes related to marriage and ten to divorce. The presence or absence of each theme was then recorded for each participant (0 = *absent* and 1 = *present*).

Themes had to be endorsed by a substantial number of participants in order to have a sufficient number of participants per cell in our statistical analysis. The two themes that came closest to the notion of marital permanence described by Willoughby et al (2015) were selected. An optimistic/hopeful view of marriage is likely to indicate that participants believe their romantic relationship will last (0 = *absent* and 1 = *present*; optimism theme). On the contrary, the theme of seeing divorce as personally fulfilling, when endorsed (0 = *no* and 1 = *yes*; divorce fulfilling theme) is thought to increase the likelihood an individual considering divorce as a viable and even desirable alternative in the face of inability to resolve marital problems, and thus might signal a lesser commitment to marital permanence.

Feelings toward divorce and marriage. Participants rated their feelings toward marriage and divorce,

separately (1 = *very positive*, 2 = *positive*, 3 = *neutral*, 4 = *negative*, and 5 = *very negative*). The variables were transformed into dichotomous variables, named negative feelings, for both divorce and marriage (1 = *yes* and 2 = *no*, with ratings of 3 on the initial Likert scale also coded as 2).

Analytic approach and plan

Inclusion of the selected variables was determined based on our review of the literature. The first two MFAs included participants from both divorced and intact families and the following variables: parental divorce and conflict, attachment style, and religious affiliation. The next two MFAs were run on participants from divorced families only (217 participants) and included parental conflict, religious affiliation and family transitions. The two analyses from each set differed depending on whether they also included variables tapping into attitudes and feelings toward marriage or into attitudes and feelings toward divorce.

MFA models can provide actual cell frequencies and can be used to test expected cell frequencies of different models in multiway contingency tables to determine the model, which best describe the data while including the least number of associations and variables (Tabachnick & Fidell, 2012). K-effects and K-way tables provide the first screening measures and are complemented by partial associations from the saturated model to select which main effects and interactions are significant and should be included in the final model (Tabachnick & Fidell, 2012). The goodness-of-fit of models is usually inferred using G-tests for maximum likelihood ratios, which should be nonsignificant to ensure predicted frequencies are close to observed frequencies of the raw data. Alpha levels of goodness-of-fit are usually less conservative ($\alpha = 0.1$; Tabachnick & Fidell, 2012).

Special care was taken when interpreting results from the MFAs. The presence of only main effects suggests independence of the variables. Two-way associations describe the conditional odds ratio between those two variables, but should not be interpreted if nested in higher order associations. Three-way associations indicate that the associations between any pair of the three variables vary across levels of the third variables (Agresti, 2007). The hiloglinear function in SPSS was used for all screening procedures and models' testing (Tabachnick & Fidell, 2012).

Results

Descriptive statistics

Chi-square tests were run between parental divorce and both gender and socioeconomic status while growing up, as well as gender and socioeconomic status paired with endorsement of the themes on divorce and marriage and feelings toward divorce and marriage. None of these findings were significant, except the association between gender and feelings toward divorce ($\chi^2(1) = 3.95, p = .047$), with men being more likely to endorse negative feelings toward divorce. Gender and socioeconomic status had no significant associations with attitudes toward marriage and divorce in the parental divorce literature (Wolfinger, 2005) and, therefore, were not included in our analyses.

Additionally, descriptive statistics were used to get a better sense of the characteristics of the participants. While 53.1% of all participants spontaneously endorsed the optimistic theme for marriage, only 39% of all participants spontaneously endorsed the divorce as a fulfilling theme. 217 participants experienced their parents' divorce. Among participants from divorced families, 143 (65.9%) of participants who experienced parental divorce reported more than two family transitions and 210 (96.8%) of the divorce-experienced participants had experienced living with a single parent. No participant was excluded on the basis of having lived or not in a single parent household. However, the variable "living in a single parent household" was not retained as one of the variables in the MFAs, to meet the statistical assumptions around cell frequencies for the MFAs. Participants from divorced families included 68 individuals (31.3%) who self-identified with a religious affiliation and 84 (38.7%) who endorsed the secure attachment rating on the RQ.

Multiway Frequency Analyses

Due to the high number of main effects and two, three, four, five and six-way associations, we decided to report K-way and higher order effects and only statistically significant main effects and multi-way associations.

MFAs with participants from intact and divorced families. The minimum number of participants to reach an adequate sample size is 320, based on our number of variables and their levels. MFA furthermore assumes that all two-way associations should be above 1 and no more than 20% of them should be below 5, in order for our analyses to retain appropriate power (Agresti, 2007; Tabachnick & Fidell, 2012). Those criteria were met for both subsequent MFAs. The likelihood ratio for overall K-way effects showed that second-order effects were the higher-level effects to be significant for the MFA with attitudes toward marriage while third-order effects were also significant for the MFA with attitudes toward divorce (see **Tables 1** and **3**).

Attitudes and feelings toward marriage. Based on the K-way effects and higher order effects, the higher-order associations that reached significance and were retained were two-way associations. Two-way associations had a likelihood ratio of $G^2 = 165.63, p = .000$. The significant one- and two-way associations are displayed in **Table 1**.

All main effects and two-way associations, which reached significance (See **Table 2**), were included in the final model. The final model had a non-significant likelihood ratio $G^2(54) = 63.18, p = .184$. We also visually checked the z-scores for our cells' residuals. They were all lower than $z = 3.00$ (criteria based on Tabachnick & Fidell, 2012), suggesting the model offered a good description of the data. The final unsaturated model was retained.

Attitudes and feelings toward divorce. Some of the partial association for four-way associations were significant. However, conclusions from combined effects for any order take precedence over the results of single same-order associations' partial test—unless the association has been hypothesized before hand—when a best-fitting

	Partial χ^2	Number of iterations
Religious affiliation	36.09**	2
Negative feelings	398.41**	2
High parental conflict	109.14**	2
Attachment style	6.55*	2
Optimism Theme x Negative Feelings	14.99**	4
Attachment Style x Negative Feelings	4.75*	4
Parents' Status x High Parental Conflict	71.74**	4

Table 1: Multiway Frequency Analysis' Significant Partial Associations Using the Saturated Model For Attitudes and Feelings Toward Marriage.

Note: $N = 446$. $df = 1$ for all partial χ^2 , ** $p < .01$ * $p < .05$.

	Partial χ^2	Number of iterations
Religious affiliation	36.08**	2
Divorce fulfilling theme	21.71**	2
High parental conflict	109.14**	2
Attachment Style	6.56*	2
Divorce Fulfilling Theme x Religious Affiliation	5.63*	7
Negative Feelings x Religious Affiliation	14.65**	7
Negative Feelings x Divorce Fulfilling Theme	74.09**	4
Attachment Style x Negative Feelings	8.88**	7
High Parental Conflict x Parents' Status	71.13**	5
High Parental Conflict x Divorce Fulfilling Theme x Negative Feelings	4.21*	6
Parents' Status x Divorce Fulfilling Theme x Negative Feelings	5.15*	6
Parents' Status x Attachment Style x Divorce Fulfilling Theme	4.46*	5
Parents' Status x Attachment Style x High Parental Conflict	7.77**	7

Table 2: Multiway Frequency Analysis' Significant Partial Associations Using the Saturated Model For Attitudes and Feelings Toward Divorce.

Note: $N = 446$. $df = 1$ for all partial χ^2 , ** $p < .01$ * $p < .05$.

	Partial χ^2	Number of iterations
Negative feelings	162.84**	2
Religious affiliation	30.98**	2
Family transitions	22.32**	2
Family Transitions x High Parental Conflict x Negative Feelings x Optimism Theme	5.35*	3

Table 3: Multiway Frequency Analysis' Partial Associations Using the Saturated Model For Attitudes and Feelings Toward Marriage in Young Adults from Divorced Families.

Note: $N = 217$. $df = 1$ for all partial χ^2 , ** $p < .01$ * $p < .05$.

model is created (Tabachnick & Fidell, 2012) and, therefore, they were not retained.

Based on the K-way effects and higher order effects, the higher-order associations that reached significance and were retained were two-way and three-way associations. Two-way associations had a likelihood ratio of

$G^2 = 299.63$, $p = .000$. Three-way association had a likelihood ratio of $G^2 = 63.79$, $p = .017$. Significant one, two, and three-way associations are displayed in **Table 2**.

Model 1 included all significant three-way interactions but model 2 included the only three-way interaction significant at $p < .01$ (See **Table 4**). Model 1 had a

	Partial χ^2	Number of iterations
Negative feelings	5.04*	2
Divorce Fulfilling Theme	3.89*	2
Family transitions	22.37**	2
Religious Affiliation	30.99**	2
Divorce Fulfilling Theme x Negative Feelings	48.47**	3
Religious Affiliation x Negative Feelings	18.30**	4
Religious Affiliation x Number of Transitions x Divorce Fulfilling Theme x Negative Feelings	5.01*	6
Family transitions x High Parental conflict x Divorce Fulfilling Theme x Negative Feelings	6.60*	4
Family transitions x Religious Affiliation x High Parental Conflict x Divorce Fulfilling Theme	4.58*	4

Table 4: Multiway Frequency Analysis' Partial Associations Using the Saturated Model For Attitudes and Feelings Toward Divorce in Young Adults from Divorced Families.

Note: $N = 217$. $df = 1$ for all partial χ^2 , ** $p < .01$ * $p < .05$.

non-significant likelihood ratio $G^2(41) = 50.01, p = .158$. A visual inspection of the cells' standard residuals revealed no cell had a z-score superior to $z = 3.00$. Model 2 had a significant likelihood ratio $G^2(49) = 67.20, p = .043$ but not when considering the Pearson $\chi^2(\chi^2(49) = 65.93, p = .054$. Model 1 was retained, because it was the only model with $p > .10$ (Tabachnick & Fidell, 2012).

MFAs with Participants from Divorced Families.

Due to limitations in the maximum number of condition, one factor had to be removed from the analysis. Attachment style was removed in order to see if distal factors could be sufficient in creating an explanatory model for the data in this study using MFA. The minimum number of participants to reach an adequate sample size is 160, based on our number of variables and their levels. Both analyses met the expected cell frequencies' criteria.

Attitudes and feelings toward marriage. While first effects were significant, fourth-order effects were significant for K-way and higher order effects when considering the likelihood ratio $G^2(G^2(6) = 12.65, p = .049)$ but not when considering the Pearson $\chi^2(\chi^2(6) = 10.36, p = .110)$. Second, third, five and six-order effects were not significant and will not be considered. Fourth order interactions will be considered for inclusion in our models if any partial association is also found to be significant for four-way effects (See **Table 3**).

Model 1 included the four-way association but not model 2. Both models included all significant one-way associations. The hiloglinear function in SPSS, which we used, automatically works with nested, hierarchical models. Model 1 had a likelihood ratio between $G_{\text{model1}}^2(16) = 44.12, p = .000$ and $G_{\text{model1}}^2(12) = 44.12, p = .000$ (adjusted). Model 1 included too many factors and associations; its p-value indicated it was extremely close to the data. Including a four-way association automatically includes all lower order three-way, two-way and one-way effects between the variables present in the four-way association in nested models. Model 2 had a likelihood ratio

$G_{\text{model2}}^2(28) = 37.39, p = .111$. A visual inspection of the cells revealed no cell had a standardized residual superior to $z = 3.00$. Model 2 was retained, because it is the only model with $p > .10$ (Tabachnick & Fidell, 2012).

Attitudes and feelings toward divorce. The likelihood ratio χ^2 for overall effects showed that overall first-order, second-order and fourth-order effects were significant. Two-way associations had a likelihood ratio of $G^2 = 115.89, p = .000$. When looking at K-way and higher order effects, four-order effects were found to be significant when considering the likelihood ratio $\chi^2(\chi^2(6) = 14.68, p = .023)$ but non-significant when considering the Pearson $\chi^2(\chi^2(6) = 12.52, p = .051)$. When looking at K-way effects alone, third-order effects were not significant overall with either analysis. A few four-way associations were found to reach statistical significance (See **Table 4**). Conclusions from combined effects for any order take precedence over the results of single same-order associations' partial test when a best-fitting model is created (Tabachnick & Fidell, 2012), unless the association has been hypothesized beforehand. Thus, third-order associations were not included in any model.

Model 1 included all significant associations (See **Table 4**). Model 2 included all two-way and one-way partial associations. Model 1 had a likelihood ratio $\chi^2(4) = 8.99, p = .061$ or $\chi^2(2) = 8.99, p = .011$ (adjusted). Model 2 had a likelihood ratio $\chi^2(25) = 38.15, p = .045$ or $\chi^2(25) = 38.15, p = .057$ (adjusted). The models were thus too close to the actual data and were rejected with our initial alpha of .10. MFAs ranks associations and main effects by strength, so associations excluded from the final, simplest model may still be significant.

Discussion

The present study sought to investigate the association structure among constructs already identified in the literature on parental divorce and attitudes toward marriage and divorce during the young adulthood developmental phase. Using MFAs provided an additional insight by

providing freedom from assumptions of linearity, directionality, and population distribution.

First, significant associations were less complex for MFAs, including optimism toward marriage and feelings toward getting married than for MFAs including the "divorce being fulfilling" theme and feelings toward divorce. Thus, young adults' optimism toward marital relationships was related to a lesser number of factors than the endorsement of a positive inclination toward divorce. Only attachment (for both groups), family transitions and parental conflicts (for participants from divorced families) had significant associations with feelings toward getting married and the optimism toward marriage theme. In addition, the strongest association was between attachment, and not distal factors, and optimism and feelings toward marriage for participants from both intact and divorced families. Distal factors such as family transitions and parental conflict were related to lower optimism and more negative feelings toward marriage for participants from divorced families. For MFAs including "divorce is fulfilling" theme and feelings toward divorce, attachment had a significant partial association with feelings toward divorce. The interactional effect between attachment and family structure (married or divorced parents) was associated with the endorsement of the theme "divorce is fulfilling". Thus, the importance of attachment style for endorsing the theme "divorce is fulfilling" varied depending on whether parents were separated or married. Based on previous research, it can be hypothesized that attachment style would be more important for participants from divorced families compared to participants from intact families in predicting the endorsement of the "divorce is fulfilling" theme (Jensen et al., 2014). Future research is necessary to understand how and if attachment style predicts young adults' attitudes toward divorce for participants in different family structures.

Second, religious affiliation was present only in associations including attitudes and/or feelings toward divorce, and was not associated with optimism or feelings toward marriage. Religious affiliation might be more important for young adults when they think about relationship dissolution compared to relationship beginning. This finding complements previous research linking religiosity and values about marriage (Sullivan, 2001) and parents' religiosity with both children's religiosity and parents' attitudes toward relationships (Kapinus & Pellerin, 2008). Religious affiliation was part of higher-order associations along with the number of transitions and parental conflict, suggesting its effect also varies depending on the levels of these two other factors. Religious affiliation could be influential for participants with a lower number of transitions but not as much for participants with a higher number of transitions (although the exact relationship between these two variables cannot be determined from this study). Further research needs to be conducted regarding the importance of religious affiliation for young adults of divorced families who are thinking about relationship dissolution.

Parental conflict was present in one or more significant partial associations, especially in MFAs including feelings toward divorce and the theme "divorce is fulfilling",

thereby our second hypothesis was not supported. It suggests that when coupled with other variables such as attachment and parental status or number of transitions, parental conflict is associated to attitudes and feelings toward divorce. These findings are in keeping with studies in which young adult children who experienced their parents' divorces and were exposed to high levels of conflict were more likely to consider divorce a viable alternative (e.g., Cui et al., 2011; Wolfinger, 2005). However, another study questioned the association between exposure to high levels of conflict and positive attitudes toward divorce (Cui & Fincham, 2010).

During the screening procedures, reported feelings toward divorce or marriage were always associated with attitudes toward divorce or marriage respectively. Yet, significant associations between two or more factors most often included feelings toward divorce or marriage and less often attitudes toward divorce or marriage. Hence, feelings rather than thought-out and endorsed attitudes might be more strongly related to previous experiences in the family of origin.

While strengthened by the use of a unique statistical method on a large sample of young persons' views on marriage and divorce, the current findings must be considered in light of the study's limitations. First, our variables were also necessarily dichotomous and some had to be collapsed for the analyses to be run, resulting in some information loss and potentially limiting the generalizability of our findings. Second, no adequate model could be derived for the analysis including attitudes and feelings toward divorce with only participants from divorced families. Third, our analyses showed the association structure of the data but could not provide information regarding the direction, or shape of the relationship. No inference can be made regarding causal mechanisms among our variables. Finally, attitudes toward marriage permanence can be influenced by a host of other factors not included in the current investigation, such as the transmission of family values by grand-parents or other relatives (Juliusdottir & Sigurdardottir, 2014) or the time elapsed since the divorce, genetic factors among many others.

Nevertheless, we hope the current findings will inspire future studies to look more closely at religious affiliation and to consider methodologies allowing for bi-directional interactions to emerge. Furthermore, longitudinal studies could clarify the pathways through which parental conflict and attachment style influence feelings toward marriage and divorce and attitudes endorsed by participants regarding marriage and divorce. Longitudinal designs could also clarify the relationships between family structures, religious affiliation and involvement and later attitudes toward romantic relationships.

Conclusions

A host of environmental factors such as parental divorce, inter-parental conflict, and personal characteristics such as attachment and religiosity influence young adults' attitudes toward divorce and marriage. Our study built on the existing research by including both religiosity and parental divorce and used multiway frequency analyses to gain

new insight into the association structure between the variables. Our findings suggest that interactions between factors might be more complex than what has been reported in the literature, especially for attitudes and feelings about divorce. Marital permanence seems to be conceptualized differently whether participants are asked about the start of the relationship or relationship dissolution. Religious affiliation was an important factor for attitudes toward divorce but less so for attitudes toward marriage. Future research on parental divorce and attitudes toward marital permanence should consider including measures of religiosity when looking at attitudes around relationship dissolution.

Competing Interests

The authors declare that they have no competing interests.

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How to cite this article: Collardeau, F. and Ehrenberg, M. (2016). Parental Divorce and Attitudes and Feelings toward Marriage and Divorce in Emerging Adulthood: New Insights from a Multiway-Frequency Analysis. *Journal of European Psychology Students*, 7(1), 24–33, DOI: <http://dx.doi.org/10.5334/jeps.341>

Published: 15 April 2016

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