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# GAINFUL ACTIVITY AND INTIMATE PARTNER AGGRESSION IN EMERGING ADULTHOOD\*

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#### Abstract

Although intimate partner aggression crosses social class boundaries, education and income are important predictors. Yet given that emerging adulthood is a transitional period, completed education and employment, as single measures, are not ideal indicators of socioeconomic status for young people. We examined associations between self-reports of gainful activity, defined as enrollment in school *or* full-time employment, and intimate partner aggression among young adults in dating, cohabiting, or married relationships (*N*=648). Both men and women's participation in gainful activity was negatively associated with aggression. We found that when neither partner was gainfully active, individuals reported higher frequency of physical aggression. In cases of gainful activity asymmetry, the gender of the gainfully active partner did not predict intimate partner aggression. Additionally, we found no evidence that the association between gainful activity and frequency of intimate partner aggression differed by union type.

# Gainful Activity and Intimate Partner Aggression in Emerging Adulthood

Low educational attainment and unemployment are risk factors for intimate partner aggression. Moreover, prior research (e.g., Atkinson, Greenstein, & Lang, 2005; Franklin, Menaker, & Kercher, 2012; Kaukinen, 2004; Macmillan & Gartner, 1999; Yllö, 1984) found that partner asymmetries in education, employment, and income were also associated with relationship aggression. Many studies, however, focused on married or cohabiting adults. Thus, it is unclear whether such findings extend to young adults, the majority of whom are not married or cohabiting. With the median age at first marriage in the U.S. at an all-time high for both men and women (28 and 26, respectively) (U.S. Census Bureau, 2010), individuals spend most of their young adulthood years involved in nonmarital relationships. A key developmental task following adolescence is learning to interact in healthy ways with intimate partners (Arnett, 2004; Clydesdale, 2007; Simon & Barrett, 2010). Yet young adults have the highest risk for intimate partner aggression (Halpern, Spring, Martin, & Kupper, 2009) suggesting the need for additional research on risk factors during this period.

In this study, we examined data from the Toledo Adolescent Relationships Study (TARS) (N = 648), drawn from a diverse sample of young adults who reported on their experience of physical aggression in the relationship. We assessed whether individuals' involvement in gainful activity, defined as enrollment in school or full-time employment, and partner symmetries/asymmetries in gainful activity, influenced the frequency of intimate partner aggression. We also examined whether the gender of the gainfully active partner influenced intimate partner aggression when only one partner was gainfully active, and whether the association between gainful activity and frequency of aggression differed by union status (i.e.,

married, cohabiting, and dating). The models included controls for, both, individual and partner delinquency, reflecting prior research, which found that couple-based background characteristics are important risk factors (Capaldi, Knoble, Shortt, & Kim, 2012). We concluded that the findings would be relevant for understanding intimate partner aggression in an economic climate characterized by decreased prospects for gainful activity among young adults.

### **Background**

To understand gainful activity and intimate partner aggression, we drew on the social structure and personality perspective, which emphasizes the significance of social statuses for behavior and well-being (House, 1981), and the concept of status homogamy, which emphasizes that individuals form unions with partners with similar characteristics as a result of both intent and opportunity. A literature on dating and marriage substantiated the trend toward status homogamy and assortative mating (e.g., Blackwell & Lichter, 2004; Kalmijn, 1998; Mare, 1991) suggesting that unemployed individuals with limited education and scarce resources would likely attract partners with comparable socioeconomic statuses. This adds to prior discussions of couple dynamics and partner aggression, which have generally focused on the tendency of individuals with histories of antisocial behavior to attract similar partners (e.g., Knight, 2011; Krueger, Moffitt, Caspi, Bleske, & Silva, 1998). Such studies have documented that the delinquency of individuals and their partners both contribute to the likelihood of experiencing relationship violence (Capaldi et al., 2005; Herrera, Wiersma, & Cleveland, 2011). We conceptualized the relationship between socioeconomic status and intimate partner violence in terms of developmental tasks associated with the life course stage of emerging adulthood, including completing an education, finding employment, and exploring relationships (Roisman, Masten, Coatsworth, & Tellegen, 2004), and by considering the gainful activities of both respondents and

their partners.

# Education, Employment, Status Asymmetries and Intimate Partner Aggression

Education reflects social capital and economic resource availability (Zweig, 2004). There is evidence that individuals with lower levels of education have greater risk of partner violence. Some studies found that this effect is stronger among individuals who have not completed high school (e.g., Chu, Goodwin, & D'Angelo, 2010; Coker et al., 2002; Thompson et al., 2006). Using data from the National Longitudinal Study of Adolescent Health (Add Health), Fang and Corso (2007) found that young adults enrolled in school were less likely to report violence victimization. Brown and Bulanda (2008) used Add Health data to assess union type and relationship violence and showed that among young women, school enrollment and educational attainment were negatively associated with victimization. For both men and women, a partner's lower education was associated with higher odds of violence perpetration and victimization. Some research found that low educational attainment disadvantaged women by leading to economic dependency on partners, which increased risk of violence and the likelihood of staying in such relationships (e.g., Anderson & Saunders, 2003; Bornstein, 2006; Kim & Gray, 2008). Further, Bornstein (2006) and Coker, Derrick, Lumpkin, Aldrich and Oldendick (2000) found that educated women used their knowledge, skills, and resources to seek help for Yet other studies relying on a range of data sources (e.g., Caetano, Vaeth, partner violence. & Ramisetty-Mickler, 2008; Fife, Ebersole, Bigatti, Lane, & Huber, 2008; Franklin & Kercher, 2012; Halpern et al., 2009) found negligible effects of the respondent, partner, or even parent's level of education on the experience of relationship violence.

Other studies found that employed women were more likely to experience both mutual violence and violence perpetration (Caetano et al., 2008). Rhoades, Stanley, Kelmer and

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Markman (2010) found that young unmarried adults reporting relationship aggression reported greater economic constraints, a circumstance more likely for individuals not employed. Similarly, others (e.g., Franklin & Kercher, 2012) found that unemployment increased violence perpetration. Additional research on the relationship between socioeconomic status and intimate partner aggression is needed to further our understanding of the connection.

Research on status asymmetry between partners focused on differences in education, employment or income as correlates of relationship violence. Studies found that couples with a traditional status imbalance in which husbands have higher status than their wives—often referred to as the marriage gradient (Bernard, 1982)—have lower odds of violence compared to those couples with non-traditional status asymmetry (e.g., Atkinson et al., 2005; Hornung, McCullough, & Sugimoto, 1981; Kaukinen, 2004; Macmillian & Gartner, 1999). Women with greater educational attainment relative to partners, what Franklin et al. (2012) referred to as "status-reversal relationships," may be susceptible to relationship violence implicating gender gender role ideology as an influence (e.g., Hornung et al., 1981; Kaukinen, 2004). Macmillian and Gartner (1999), Sherman (2009), and Franklin et al. (2012) suggested that women's higher employment status threatens some men's perceptions of masculinity. Franklin et al. (2012) examined 303 women ages 18–81, and found that when both partners were employed, the odds of victimization were two times higher, and concluded that women's employment challenged men's traditional breadwinner role. Similarly, Atkinson et al. (2005) found that the effect of husbands' lower resources, relative to their wives, on relationship violence was moderated by gender ideology, with traditional ideology being associated with violence. Yet these findings are in contrast to Bornstein's (2006) and other scholars' (e.g., Anderson & Saunders, 2003; Kim & Gray, 2008) findings that economically dependent wives were at greater risk of violence.

# Gainful Activity and Intimate Partner Aggression during Emerging Adulthood

Prior literature examining effects of education, employment, and status asymmetry on relationship violence suffers from four limitations that we aimed to overcome with this study. First, diversity in employment and education characterize emerging adulthood, complicating straightforward analyses of the influence of these factors on partner aggression. Many young adults, for example, are still in the process of obtaining an education (Settersten & Ray, 2010); thus measuring completed education is not ideal. Moreover, young adults are increasingly likely to be financially dependent on parents for longer periods (Furstenberg, Kennedy, McCloyd, Rumbaut, & Settersten, 2004; Settersten & Ray, 2010). Importantly, young adults in school full-time may score lower on measures of employment participation, but be 'on track' in acquiring credentials associated with later successful economic transitions. Conversely, "early starters" (Shanahan, Porfeli, Mortimer, & Erickson, 2005), individuals who found employment right after high school, may report low educational attainment, but their full-time employment status reflects economic stability generally associated with favorable outcomes.

Relatedly, employment change among young adults is frequent. Hamilton and Hamilton (2006) and others (e.g., Arnett, 2000; Settersten & Ray, 2010) noted that for some, employment change during emerging adulthood, reflected deliberate identity exploration. Yet for others, employment mobility and unemployment may reflect a lack of direction and economic downturns. In a recent study, 37% of individuals who graduated high school between 2009 and 2011 were unemployed, compared to 23% of those who graduated before the recession (Van Horn, Zukin, Szeltner, & Stone, 2012). Moreover, recent graduates not enrolled in college were almost twice as likely not to be working or looking for work compared with those in college (Bureau of Labor Statistics, 2012). Thus, in the current U.S. economic climate, unemployment

may be likely for this group. We argued that the concept of gainful activity is a more appropriate measure of status for this life stage.

Second, prior studies focused largely on women's victimization. Yet many empirical studies based on survey data that likely capture mutual or situational couple violence (Johnson, 2005), demonstrated that women report similar or higher rates of perpetration (e.g., Archer, 2000; Straus, 2008, 2010; Rhoades et al., 2010; Whitaker, Haileyesus, Swahn, & Saltzman, 2007). Moreover, studies using community-based samples, including the TARS (e.g., Johnson, Giordano, Longmore, & Manning, forthcoming), found that perpetration and victimization were highly correlated (e.g., Archer, 2000; Caetano et al., 2008; Gustafsson & Cox, 2012; Jennings, Piquero, & Reingle, 2012). By focusing primarily on female victimization, researchers underestimated male partners' self-reports in understanding the experience and risk of partner aggression. In this study, we examined both men and women's self-reports of partner aggression. Given the high correlation between perpetration and victimization, we focused on the frequency of any episodes of aggression.

Third, prior studies demonstrated the importance of gender dynamics and economic asymmetry. Here we examined two gender-specific forms of asymmetry reflecting the view that gainful activity may be salient to some men's masculine identity and critical to understanding partner aggression. Moreover, when neither partner is gainfully active, everyday stressors may be magnified, a situation in which *symmetry*, rather than asymmetry, may be associated with partner aggression. We assessed gainful activity symmetry in addition to asymmetry.

Fourth, most young adults are not married, but are likely to date or cohabit. Cohabitation is especially likely. Between 2006 and 2008, 41% of women ages 19 to 24 had ever cohabited; by ages 25 to 29, 63% had cohabited (Manning, 2010). Prior studies of relationship violence,

education/employment, and status asymmetries typically focused on married couples (e.g., Anderson, 1997; Atkinson et al., 2005; Hornung et al., 1981; Kaukinen 2004; Macmillan & Gartner, 1999; Yllö, 1984). The national median age at first marriage, however, is at a historic highpoint (age 26 for women and 28 for men), thus nonmarital unions reflect the diversity of relationships during emerging adulthood. Employment or financial independence is often a prerequisite for commitment and influences transitions from dating to cohabitation (Manning & Smock, 2005; Sassler, 2004), and cohabitation to marriage. Kenney and McLanahan (2006) found that lower educational attainment was associated with continued cohabitation, as opposed to transitioning to marriage, and continued cohabitation was associated positively with violence. These findings suggested that the association between economic factors and partner aggression may differ by union type.

# **Current Study**

We assessed whether gainful activity was associated with partner aggression. We examined the frequency of any violence because in preliminary analyses, the TARS data were consistent with other community studies (e.g., Jennings et al. 2012) in that nearly 49% of the sample reporting any physical aggression indicated that it was mutual, versus 19% reporting perpetration only and 32% reporting victimization only. Because investments in education and employment are more salient for co-residing couples sharing expenses, we examined whether the influence of gainful activity on partner aggression differed for individuals in dating, cohabiting, and marital unions. We controlled for relationship characteristics associated with partner aggression including having children (Vest, Catlin, Chen, & Brownson, 2002) and relationship duration (Fox, Benson, DeMaris, & Van Wyk, 2002). We also controlled for delinquency (Lanctot, Cernkovich, & Giordano, 2007; Schafer, Caetano, & Cunradi, 2004). Specifically, we

examined self-reports from respondents on their own and their partner's involvement in antisocial activities (Capaldi et al., 2012). Family variables associated with aggression included perceptions of parental caring (Schwartz, Hage, Bush & Burns, 2006). We also controlled for demographic correlates including family structure during adolescence, parental education (Brown & Bulanda, 2008), and age and race/ethnicity (Halpern et al., 2009).

We examined five hypotheses. First, a lack of gainful activity would be associated with greater frequency of partner aggression. Second, when neither partner was gainfully active respondents would report greater frequency of aggression compared with other gainful activity combinations. Third, non-traditional asymmetry in gainful activity—in which women were gainfully active and partners were not—would be associated with greater frequency of partner aggression. Fourth, consistent with studies of mutual violence, gender would not be associated with partner aggression. Fifth, the influence of gainful activity on partner aggression would differ by union status, and would be more salient for married than cohabiting and dating relationships.

#### **Data and Methods**

#### Data

The Toledo Adolescent Relationships Study (TARS) is based on a stratified random sample of adolescents in 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grade in the fall of 2000 from school enrollment records across 7 school districts and 62 schools in Lucas County, Ohio. Records were accessible through Ohio's Freedom of Information Act. The TARS dataset is noteworthy in that while school registration was required for inclusion in the sampling frame, school attendance was not. The data included oversamples of Black and Hispanic students. In 2001, respondents first participated in sin-home interviews with pre-loaded questionnaires on laptop computers.

Interviewers administered a questionnaire to parents or guardians. Respondents were reinterviewed in 2002, 2004, and 2006. The fourth data collection comprised 83% of the original sample (N = 1, 321). The current investigation focused on the fourth interview for the dependent and focal independent variables, but parent and respondent items from the first interview were included as controls.

The analytic sample consisted of Black, White, and Hispanic respondents who reported having a current intimate partner at the time of the fourth interview. We focused on current relationships to ensure that gainful activity statuses referenced that relationship. We excluded 51 respondents who were in high school, 18 reporting same-sex relationships, and 14 reporting "other" as their race, since there were too few cases to analyze. We excluded 12 cases excluded due to missing data on one or more covariates, and sensitivity checks confirmed that their exclusion did not alter findings. We assumed that this exclusion was acceptable since the cases comprised less than 2% of the analytic sample (Acock, 2005). These restrictions resulted in a sample of 648.

#### **Measures**

# Dependent variable.

Frequency of any physical intimate partner aggression. This referred to any victimization and perpetration using four items from the Revised Conflict Tactics Scale (CTS) (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The prompt stated, "During this relationship, how often has/did [partner]:" "throw/n something at you," "push/ed, shove/d, or grab/bed you," "slap/ped you in the face or head with an open hand," or "hit you." Responses included "never," "hardly ever," "sometimes," "often," or "very often." The frequency was the sum of respondents' perpetration and victimization scores, resulting in a range of 8 to 32 ( $\alpha$  =

.89). Factor loadings were satisfactory, from .64 to .82. Because 60% did not report any physical aggression, we logged this variable to account for skewness. The time referent for aggression was the duration of the relationship and not a specified period, such as the last year, to ensure that responses did not refer to multiple relationships in one time period.

# Independent variables.

Gainful activity. Respondents reported whether they and their partners were employed full-time or enrolled in school. First, respondents answered "yes" or "no" to, "Are you attending school [high school, vocational school, or college] this year?" and "Is [partner] in school?" Next, respondents answered "yes" or "no" to, "Are you currently working for pay for at least 10 hours a week?" and "Is this job full-time or part-time?" Respondents then answered the same questions concerning their partner. We used these answers in combination with respondent's gender (e.g., Franklin et al., 2012) to create gender-specific dummy variables for gainful activity status: man is gainfully active and woman is gainfully active. These referred to the man or woman in each reported relationship, not only to the respondent. For example, man is gainfully active applied in either of two circumstances: (1) the respondent was male and gainfully active, or (2) the respondent was female and reported that her partner was gainfully active. Next, we created four mutually exclusive gender-specific couple combinations of gainful activity. Respondents who indicated that they and their partner were gainfully active were coded '1' for both partners gainfully active (reference category). Respondents who reported that they were gainfully active but their partners were not, or that they were not gainfully active but partners were gainfully active, were coded as '1' for either woman gainfully active only or man gainfully active only, depending on their gender. Respondents who reported that neither they nor their partner were gainfully active were coded '1' for neither partner gainfully active.

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Relationship characteristics. These included union type, having children, relationship duration, and traditional gender view. Dummy variables indicated *union type* based on respondents' relationship histories: married (10%), cohabiting (nearly 28%), or nonresidential dating relationship (62%) (reference group). A dummy variable indicating whether the respondent had *children* (almost 24%). Relationship duration was an interval variable ranging from 1 ("less than a week") to 8 ("a year or more"). The mean duration was approximately nine months to one year. Traditional gender view was one item. Respondents indicated how strongly they agreed ("strongly disagree" = 1; "strongly agree" = 5) with, "In most relationships the guy should be in charge" (Pleck,Sonenstein, & Ku, 1993). The mean score was 2.43, relatively neutral, but men were more likely to agree with this statement.

Anti-social behaviors. We included respondents' reports of their own and partners' delinquency, measured as a mean scale of ten items ( $\alpha$  = .66 for the respondent scale, and .70 for the partner scale) from Elliott and Ageton's (1980) 26-item scale. The prompt asked, "In the past 24 months (or 2 years), how often have you:" "drunk alcohol," "stolen (or tried to steal) things worth \$5 or less," "carried a hidden weapon other than a plain pocket knife," "damaged or destroyed property on purpose," "stolen (or tried to steal) things worth more than \$50," "attacked someone with the idea of seriously hurting him/her," "sold drugs," "been drunk in a public place," "broken into a building or vehicle (or tried to break in) to steal something or just to look around," and "used drugs to get high (not because you were sick)?" Respondents then answered the same questions regarding their partners. Respondents reported frequency, coded 0 ("never") to 9 ("more than once a day"). The mean frequency was .64, or less than once or twice a year. Next, we used mean delinquency, by gender, to create a dichotomous antisocial indicator for men and women. Individuals were delinquent if they scored at least one deviation above the

mean for their gender on the continuous scale. The scores referred to the man or woman in the relationship, regardless of whether he or she is the respondent or the partner. Finally, we created partner combinations of delinquency similar to the gainful activity combinations: *neither partner delinquent* (reference category), *man delinquent only*, *woman delinquent only*, and *both partners delinquent*. The two forms of delinquency symmetry were the dominant categories: more than 50% of the sample reported neither partner as delinquent, and more than 25% reported both partners as delinquent.

**Parental caring.** Respondents' perceptions of parental caring were based on five statements asked at the first interview. Respondents reported their agreement (1 ="strongly disagree" and 5 ="strongly agree") with the following: "My parents often ask about what I am doing in school;" "My parents give me the right amount of affection;" "My parents trust me;" "I'm closer to my parents than a lot of kids my age;" and "I feel close to my parents." We used the mean of the items, multiplied by five ( $\alpha = .76$ ). The overall mean was 19.97, indicating strong feelings of parental caring.

Demographic factors. We included family structure, parent's education as a proxy for socioeconomic background, age, race/ethnicity, and gender measured at the first interview. To assess family structure the prompt asked, "During the past 12 months, who were you living with most of the time?" Responses were collapsed into four categories: two biological parents (reference group, about 49%), stepparents (about 15%), a single parent (about 23%), or 'other family' (just over 13%). Parent's education was from the parent questionnaire, and was categorized as less than high school (13%), high school graduate or GED (33%), some college (35%), or college or more (19%). Over 91% of the responding parents were mothers. We calculated age using the respondent's date of birth and the interview date, and ranged from 17 to

24 with a mean of 20.64 years. We top- and bottom-coded the variable combining ages 17 and 18, and 23 and 24 due to small cell sizes for the lowest and highest ages. *Race/ethnicity* consisted of three categories: White (reference group, nearly 64%), Black (24%), and Hispanic (close to 13%). *Gender* was a dichotomous variable (female = 1; 58 %).

# **Analytic Strategy.**

We provided descriptive analyses for the full sample and by gender (Table 1). We estimated assess associations between gainful activity and frequency of partner aggression with linear regression models (Table 2). We presented models estimating the associations between each independent variable and logged frequency of any partner aggression (Model 1). We then estimated the effects of gainful activity on frequency of intimate partner aggression controlling for covariates: first with gendered individual-level gainful activity status as the key independent variables (Model 2), then with partner combinations as key predictors (Model 3). Model 3 also included the partner combinations of anti-social behavior. Next, we included cross-product terms of union status and gainful activity combinations to determine if the effects of gainful activity on intimate partner aggression differed by union type (Model 4).

#### **Results**

# **Descriptive Analysis**

In Table 1 we presented descriptive statistics for the full sample and by gender. Nearly 40% of respondents reported experiencing physical aggression in their current relationships. The mean logged frequency for the sample was 2.26 on a scale of 2.08 to 3.47. Men reported significantly higher frequency of relationship aggression (2.29) than women (2.24). About 76% of respondents reported that the male partner was gainfully active, and nearly 75% reported that the female partner was gainfully active. About 61% said that both partners were gainfully active.

Over 25% reported gainful activity asymmetry: about 15 % were in relationships in which only the man was gainfully active, and over 13% were in relationships in which only the woman was gainfully active. Ten percent of respondents reported relationships in which neither partner was gainfully active. Reports of both types of asymmetry differed significantly by gender: a greater share of men reported relationships in which only the woman was gainfully active (18% versus 10.5%); a greater share of women reported relationships in which only the man was gainfully active (18% versus 11%).

# **Zero-Order and Multivariate Analyses**

In Table 2, zero-order analyses (Model 1) demonstrated that men and women's gainful activity was similarly associated with less aggression. Both types of gainful activity asymmetry were associated with greater frequency of aggression compared to those relationships in which both partners were gainfully active. Relationships in which neither partner was gainfully active were associated with the greatest frequency of aggression. Some *relationship* factors, including union status and having children, were associated with partner aggression. Cohabitors reported a higher frequency partner aggression than daters. Married respondents did not differ significantly from daters. Respondents with traditional gender views reported significantly higher frequency of partner aggression.

Anti-social behavior was associated with aggression at the bivariate level. For the individual measures, being delinquent was associated with higher frequency of partner aggression for men and women. For the partner combinations of delinquency, respondents who reported that only the man was delinquent and respondents who reported that both partners were delinquent reported more frequent aggression than couples in which neither partner was delinquent.

Parental caring and somw demographic factors influenced partner aggression. That is, having a mother with a college education or higher, a proxy for socioeconomic status while growing up, was protective against partner aggression. Black and Hispanic respondents, relative to White respondents, reported higher frequency of partner aggression.

Turning to the multivariate results, Model 2 included men and women's gainful activity status controlling for the other covariates, and the individual-level delinquency measures. Both men's and women's gainful activity was associated with less intimate partner aggression, supporting our first hypothesis, which stated that a lack of gainful activity was associated with greater frequency of aggression. In this model, men's delinquency was associated with more frequent partner aggression while the effect of women's delinquency was nonsignificant. The associations of union status, traditional gender views, parental caring, and race/ethnicity persisted with controls.

Model 3 examined whether partner combinations of gainful activity were associated with frequency of partner aggression net of covariates, and incorporated the partner combinations of delinquency. Being in a relationship in which neither partner was gainfully active had the strongest association with frequency of partner aggression. This supported our second hypothesis that individuals in relationships in which neither partner was gainfully active would report greater frequency of partner aggression compared with those reporting other gainful activity combinations. Compared to both partners being gainfully active, neither form of asymmetry was significantly predictive of aggression. We also assessed whether the gender of the gainfully active partner influenced frequency of aggression (results not shown). Importantly, the two forms of asymmetry did not differ significantly in their effect on experiencing aggression, thus our third hypothesis was not supported. As our fourth hypothesis predicted, gender did not

significantly predict frequency of partner aggression. Model 4 showed that the effect of gainful activity on intimate partner aggression did not differ significantly by union type, contrary to our fifth hypothesis.

#### **Discussion**

Similar to findings from other community samples of young adults (e.g., Jennings et al., 2012; Rhoades et al. 2010), nearly 40% of respondents reported experiencing physical aggression in their current relationships. This is consistent with our view, and that of other scholars (e.g., Berger, Wildsmith, Manlove, & Steward-Streng, 2012) that during emerging adulthood as individuals become more involved in dating, cohabiting and marital relationships they have an increased risk of partner aggression. For example, analyses of Add Health data found that while 8% of teens reported partner victimization, by emerging adulthood victimization increased to 25% (Halpern et al., 2009). Thus, while emerging adulthood is conceptualized as involving identity exploration and deeper involvement in romantic relationships (e.g., Arnett 2000), it is also associated with partner aggression. As such, it is imperative for scholars to help explain this high risk of partner aggression during this life stage.

To this end, we addressed four gaps in the literature on partner aggression. First, we argued that the conventional correlates of completed education, employment, and income separately were not ideal measures during emerging adulthood because individuals are still transitioning to economic independence or may still be completing their education. Yet young adults who were neither working full-time *nor* enrolled in school may be at risk of experiencing partner aggression. This has implications in the current economic climate, as a lack of gainful activity is a circumstance increasingly likely for young adults: as of May 2012, individuals ages 20 to 24 had an unemployment rate of nearly 13%, almost twice that of adults age 25 and older.

Among 18- and 19-year-olds—those adults who would be looking for employment after high school—the unemployment rate was 23.5% (Bureau of Labor Statistics, 2012). We argued that it is important to understand the implications of this economic reality for young adults involved in intimate relationships.

Second, rather than focus only on female victimization, we considered the documented prevalence of reciprocal partner aggression and assessed the experience of any type of physical aggression for young men and women. Third, we added to research by examining not only gender asymmetries in gainful activity, but also two forms of symmetry. Fourth, whereas much literature on partner aggression among adults focused on married couples, the importance of other union types—namely cohabiting and dating relationships—is important in a study on emerging adults. We included all three union types and examined whether the effects of gainful activity on intimate partner aggression varied across these types.

Consistent with the broader literature on socioeconomic status and relationship violence lack of gainful activity in emerging adulthood was associated with aggression. Both women and men's gainful activity was associated with lower frequency of intimate partner aggression, net of other known correlates of intimate partner aggression (Hypothesis 1). We found that individuals who reported that neither they nor their partners were involved in gainful activity also reported experiencing greater frequency of partner aggression compared to those in relationships in which both partners were gainfully active, net of controls (Hypothesis 2). As expected, we did not find gender to be significantly predictive of the frequency of partner aggression (Hypothesis 4), and this is consistent with literature on mutual violence (e.g., Johnson, 2005). Contrary to our expectations, however, we did not find a statistically significant relationship between the gender of the gainfully active partner and partner aggression in cases of asymmetry (Hypothesis 3). This

refutes earlier literature citing status asymmetry as a risk factor for aggression in intimate relationships (e.g., Atkinson et al., 2005; Hornung et al., 1981; Kaukinen, 2004; Macmillian & Gartner, 1999). Furthermore, asymmetries were not predictive of intimate partner aggression after controlling for other known correlates.

Gainful activity was related to relationship aggression similarly for dating, cohabiting, and married young adults. Also contrary to our expectations, our analyses revealed that the effects of respondents' reports of both partners' gainful activity were consistent across married, cohabiting, and dating relationships (Hypothesis 5). This supported and went beyond prior research (e.g., Brown & Bulunda, 2008; Hardie & Lucas, 2010) that found economic factors increased the risk of relationship conflict in both cohabiting and married couples.

These analyses also advanced our understanding of intimate partner aggression by demonstrating the utility of moving beyond women's economic dependency as *the* critical factor, and focusing on the contexts of relationships (in this case, the gainful activity dynamic between two partners) to better understand the experience of intimate partner aggression. Prior research showed that economic hardship is associated with relationship aggression (e.g., Chu et al., 2010; Coker et al., 2002; Thompson et al., 2006); we contributed by finding that *both* partners' lack of gainful activity was likely a critical relationship stressor leading to physically aggressive interactions during emerging adulthood. While this may be due to the more tangible economic stressors, it is also possible that each partner's lack of gainful activity influenced the other's perceptions of worth or potential as a successful individual (Fox et al., 2002; Sherman, 2009), exacerbated by concerns that the partner's prospects may be equally in doubt. It was also noteworthy that including similar symmetry/asymmetry measures of delinquency showed a similar pattern of effects; that the delinquent pairs were the second largest type of couple

suggests that the assortative mating process may compound risk for some individuals.

This study had several limitations. One, which is a limitation of relationship violence studies in general, was the reliance on cross-sectional data for the primary explanatory and dependent variables. The data were also collected within one metropolitan area; future research should examine the effects of gainful activity among a nationally representative sample. Another limitation was that while the data provided information on part-time versus full-time employment, we did not have a parallel measure of part-time versus full-time school enrollment. We also need studies that examine other relationship dynamics associated with lack of gainful activity, and that measure couple-level data. Additionally, while our dependent variable was the frequency of any physical aggression within intimate relationships in emerging adulthood, this is not to argue that the question of gainful activity and its association with direction or severity of aggression is unimportant. Such indicators provide informative and nuanced understanding of relationship aggression and in future work we hope to investigate these outcomes as well. Regarding explanatory variables, income, particularly when husbands earned less than their wives, which was associated with heightened risk of relationship violence, was not examined in this study given the younger age range of the respondents. Further attention to earnings, and financial support from parents, credit, and loans would provide a more accurate picture of financial circumstances. Ideally, studies might examine other combinations of gainful activity using these categories.

Moreover, the age range of the analytic sample did not reach the full range often attributed to emerging adulthood; thus our findings are applicable more specifically to the earlier half of emerging adulthood. Our analyses reflecting union formation, specifically marriage, are not representative of the entire period. The sample of married couples was quite select of young

marriages and was based on a relatively small number of cases. Subsequent waves of data could alleviate these shortcomings, and the TARS is currently collecting a fifth wave of data that we will use to address these issues. Lastly, our study relied on one measure of intimate partner aggression, the revised CTS on physical aggression, and may not capture the context of aggressive events.

The current study added to the larger body of research on this phase of emerging adulthood, which has increasingly stressed the diversity of experiences that characterize the period. Our findings underscore that global characterizations of this phase as either a carefree time for exploration and self-discovery or a period of struggling to achieve adult status minimize the considerable variability in how this time of transition is experienced. These analyses document that the gainful activity of the individual and that of the partner matter for understanding variation in reports of intimate partner aggression. Models incorporated traditional controls, including indices tapping antisocial behavior patterns, suggesting that the lack of gainful activity compromised relationship quality even after these tendencies had been taken into account. In addition, it is noteworthy that this association was found for the large share of respondents who were involved in dating relationships along with those in coresidential unions. Such findings indicated that as researchers investigate the young adults' progress in achieving traditional markers of success, a complete understanding of their lifestyles and well-being will often entail consideration of their partner's own progress and corresponding circumstances.

Early on Liebow (1967) noted that lacking richly diversified portfolios of interests and concerns, disadvantaged individuals often place heavy emphasis on their interpersonal ties—even as they lack an abundance of the resources that facilitate building and sustaining relationships. Although prior research provided a basis for considering partner asymmetries in

gainful activity, the situation of non-involvement in gainful activity for both members of the couple appeared to be one that carried special risk. These circumstances are likely associated with few 'degrees of freedom' for young people who may need to depend on familial or government support, or sporadic underground or illegal activity in order to survive. Issues surrounding gainful activity may be even more salient in the current economic climate as young adults today may face even greater uncertainty about their future economic prospects. Access to counseling services may also be more limited as individuals would not have ties to school settings providing such services, or to services obtained through employer-sponsored insurance. It is critically important to build upon programs that provide avenues for young adults to pursue a range of gainful activities, as this will not only encourage long-term social and financial independence, but may reduce the likelihood of relationship discord and instability as well.

# References

- Acock, A. C. (2005). Working with missing values. *Journal of Marriage and Family*, 67, 1012–1028.
- Anderson, K. L. (1997). Gender, status, and domestic violence: An integration of feminist and family violence approaches. *Journal of Marriage and the Family*, *59*, 655–669.
- Anderson, D. K., & Saunders, D. G. (2003). Leaving an abusive partner: An empirical review of predictors, the process of leaving, and psychological well-being. *Trauma, Violence, & Abuse, 4*, 163–191.
- Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin*, 126, 651–680.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*, 469–480.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York: Oxford University Press.
- Atkinson, M. P., Greenstein, T. N., & Lang, M. M. (2005). For women, breadwinning can be dangerous: Gendered resource theory and wife abuse. *Journal of Marriage and Family*, 67, 1137–1148.
- Berger, A., Wildsmith, E., Manlove, J., & Steward-Streng, N. (2012). Relationship violence among young adult couples: Publication #2012-14. Retrieved from <a href="http://www.childtrends.org/Files/Child\_Trends-2012\_06\_01\_RB\_CoupleViolence.pdf">http://www.childtrends.org/Files/Child\_Trends-2012\_06\_01\_RB\_CoupleViolence.pdf</a>.
- Bernard, J. (1982). The future of marriage. New Haven, CT: Yale University Press.
- Blackwell, D. L., & Lichter, D. T. (2004). Homogamy among dating, cohabiting, and married couples. *The Sociological Quarterly*, 45, 719–737.

- Bornstein, R. F. (2006). The complex relationship between dependency and domestic violence:

  Converging psychological factors and social forces. *American Psychologist*, *61*, 595–606.
- Brown, S. L., & Bulanda, J. R. (2008). Relationship violence in young adulthood: A comparison of daters, cohabitors, and marrieds. *Social Science Research*, *37*, 73–87.
- Bureau of Labor Statistics. (2012). Labor force statistics from the Current Population Survey.

  Retrieved from http://www.bls.gov/web/empsit/cpseea10.htm.
- Caetano, R., Vaeth, P. A. C., & Ramisetty-Mikler, S. (2008). Intimate partner violence victim and perpetrator characteristics among couples in the United States. *Journal of Family Violence*, 23, 507–518.
- Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse*, *3*, 231–280.
- Capaldi, D. M., Shortt, J. W., & Kim, H. K. (2005). A life span developmental systems perspective on aggression toward a partner. In W. M. Pinsof & J. L. Lebow (Eds.), *Family psychology: The art of the science. Oxford series in clinical psychology* (141–167). New York, NY, US: Oxford University Press.
- Chu, S. Y., Goodwin, M. M., & D'Angelo, D. V. (2010). Physical violence against U.S. women around the time of pregnancy. *American Journal of Preventive Medicine*, 38, 317–322.
- Clydesdale, T. (2007). The first year out: Understanding teens after high school. Chicago: Chicago University Press.
- Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., & Smith, P. H. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine*, 23, 260–268.
- Coker, A. L., Derrick, C., Lumpkin, J. L., Aldrich, T. E., & Oldendick, R. (2000). Help-seeking

- for intimate partner violence and forced sex in South Carolina. *American Journal of Preventive Medicine*, 19, 316–320.
- Elliott, D. S., & Ageton, S. S. (1980). Reconciling race and class differences in self-reported and official estimates of delinquency. *American Sociological Review*, 45, 95–11.
- Fang, X., & Corso, P. S. (2007). Child maltreatment, youth violence, and intimate partner violence. *American Journal of Preventive Medicine*, *33*, 281–290.
- Fife, R.S., Ebersole, C., Bigatti, S., Lane, K. A., & Huber, L. R. B. (2008). Assessment of the relationship of demographic and social factors with intimate partner violence among Latinas in Indianapolis. *Journal of Women's Health*, 17, 769–775.
- Fox, G. L., Benson, M. L., DeMaris, A. A., & Van Wyk, J. (2002). Economic distress and intimate violence: Testing family stress and resource theories. *Journal of Marriage and Family*, 64, 793–807.
- Franklin, C. A., & Kercher, G. A. (2012). The intergenerational transmission of intimate partner violence: Differentiating correlates in a random community sample. *Journal of Family Violence*, 27, 187–199.
- Franklin, C. A., Menaker, T. A., & Kercher, G. A. (2012). Risk and resiliency factors that mediate the effect of family-of-origin violence on adult intimate partner victimization and perpetration. *Victims & Offenders*, 7, 121-142.
- Furstenberg, F. F., Kennedy, S., McCloyd, V. C., Rumbaut, R. G., & Settersten, R. A. (2004).

  Growing up is harder to do. *Contexts*, 3, 33–41.
- Gustafsson, H. C., & Cox, M. J. (2012). Relations among intimate partner violence, maternal depressive symptoms, and maternal parenting behaviors. *Journal of Marriage and Family*, 74, 1005–1020.

- Hardie, J. H., & Lucas, A. (2010). Economic factors and relationship quality among young couples: comparing cohabitation and marriage. *Journal of Marriage and Family*, 72, 1141–1154.
- Halpern, C. T., Spriggs, A. L., Martin, S. L., & Kupper, L. L. (2009). Patterns of intimate partner violence victimization from adolescence to young adulthood in a nationally representative sample. *Journal of Adolescent Health*, 45, 508–516.
- Hamilton, S. F., & Hamilton, M. A. (2006). School, work, and emerging adulthood. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21*<sup>st</sup> century (257–277). Washington, D.C.: American Psychological Association.
- Herrera, V. M., Wiersma, J. D., & Cleveland, H. H. (2011). Romantic partners' contributions to the continuity of male and female delinquency and violent behavior. *Journal of Research on Adolescence*, 21, 608–618.
- House, J. (1981). Social structure and personality. In M. Rosenberg & R. Turner (Eds.), *Social Psychology: Sociological Perspectives* (525–561). New York: Basic Books.
- Hornung, C. A., McCullough, B. C., & Sugimoto, T. (1981). Status relationships in marriage: Risk factors in spouse abuse. *Journal of Marriage and the Family*, 43, 675–692.
- Jennings, W. G., Piquero, A. R., & Reingle, J. M. (2012). On the overlap between victimization and offending: A review of the literature. *Aggression and Violent Behavior*, 17, 16–26.
- Johnson, M. P. (2005). Domestic violence: it's not about gender—or is it? *.Journal of Marriage* and Family, 67, 1126-1130.
- Johnson, W. L., Giordano, P. C., Longmore, M. A., & Manning, W. D. (2012). The influence of intimate partner violence on trajectories of depressive symptoms from adolescence to young adulthood (Working Paper No. 2012-14). Bowling Green, OH: Center for Family

- and Demographic Research. Retrieved from:
- http://www.bgsu.edu/downloads/cas/file122586.pdf
- Kalmijn, M. (1998). Intermarriage and homogamy: Causes, patterns, and trends. *Annual Review of Sociology*, 24, 395–421.
- Kaukinen, C. (2004). Status compatibility, physical violence, and emotional abuse in intimate relationships. *Journal of Marriage and Family*, 66, 452–471.
- Kenney, C. T., & McLanahan, S. S. (2006). Why are cohabiting relationships more violent than marriages? *Demography*, 43, 127–140.
- Kim, J., & Gray, K. A. (2008). Leave or stay? Battered women's decision after intimate partner violence. *Journal of Interpersonal Violence*, 23, 1465–1482.
- Knight, K. E. (2011). Assortative mating and partner influence on antisocial behavior across the life course. *Journal of Family Theory & Review*, *3*, 198–219.
- Krueger, R. F., Moffitt, T. E., Caspi, A., Bleske, A., & Silva, P. A. (1998). Assortative mating for antisocial behavior: Developmental and methodological implications. *Behavior Genetics*, 28, 173–186.
- Lanctot, N., Cernkovich, S. A., & Giordano, P. C. (2007). Delinquent behavior, official delinquency, and gender consequences for adulthood functioning and well-being. *Criminology*, 45, 131–157.
- Liebow, E. (1967). *Tally's corner, Washington, D.C.: A study of negro streetcorner men.* New York: Little, Brown & Co.
- Macmillan, R., & Gartner, R. (1999). When she brings home the bacon: Labor-force participation and the risk of spousal violence against women. *Journal of Marriage and the Family*, 61, 947–958.

- Manning, W. D. (2010). *Trends in cohabitation: Twenty years of change, 1987–2008* (FP-10-07). Retrieved from http://ncfmr.bgsu.edu/pdf/family\_profiles/file87411.pdf.
- Manning, W. D., & Smock, P. J. (2005). Measuring and modeling cohabitation: New perspectives from qualitative data. *Journal of Marriage and Family*, 67, 989–1002.
- Mare, R. D. (1991). Five decades of educational assortative mating. *American Sociological Review*, *56*, 15–32.
- Pleck, J. H., Sonenstein, F. L., & Ku, L. C. (1993). Masculinity ideology: Its impact on adolescent males' heterosexual relationships. *Journal of Social Issues*, 49, 11–29.
- Rhoades, G. K., Stanley, S. M., Kelmer, G., & Markman, H. J. (2010). Physical aggression in unmarried relationships: The roles of commitment and constraints. *Journal of Family Psychology*, 24, 678–687.
- Roisman, G. I., Masten, A. S., Coatsworth, D., & Tellegen, A. (2004). Salient and emerging developmental tasks in the transition to adulthood. *Child Development*, 75, 123–133.
- Sassler, S. (2004). The process of entering cohabiting unions. *Journal of Marriage and Family*, 66, 491–505.
- Schafer, J., Caetano, R., & Cunradi, C. B. (2004). A path model of risk factors for intimate partner violence among couples in the United States. *Journal of Interpersonal Violence*, 19, 127–142.
- Schwartz, J. P., Hage, S. M., Bush, I., & Burns, L. K. (2006). Unhealthy parenting and potential mediators as contributing factors to future intimate violence a review of the literature.

  \*Trauma, Violence, & Abuse, 7, 206–221.
- Shanahan, M. J., Porfeli, E. J., Mortimer, J. T., & Erickson, L. D. (2005). Subjective age and identity and the transition to adulthood: When do adolescents become adults? In R. A.

- Settersten, F. F. Furstenberg, & R. G. Rumbaut (Eds.), *On the frontier of adulthood* (225–255). Chicago: Chicago University Press.
- Sherman, J. (2009). Bend to avoid breaking: Job loss, gender norms, and family stability in rural America. *Social Problems*, *56*, 599–620.
- Simon, R. W., & Barrett, A. E. (2010). Nonmarital romantic relationships and mental health in early adulthood: Does the association differ for women and men? *Journal of Health and Social Behavior*, *51*, 168–182.
- Settersten, R. A., & Ray, B. (2010). What's going on with young people today? The long and twisting path to adulthood. *The Future of Children*, 20(1), 19–41.
- Straus, M. A. (2008). Dominance and symmetry in partner violence by male and female university students in 32 nations. *Children and Youth Services Review*, 30, 252–275.
- Straus, M. A. (2010). Thirty years of denying the evidence on gender symmetry in partner violence: Implications for prevention and treatment. *Partner Abuse 1*, 332–363.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2) development and preliminary psychometric data. *Journal of Family Issues*, *17*, 283–316.
- Thompson, R. S., Bonomi, A. E., Anderson, M., Reid, R. J., Dimer, J. A., Carrell, D., & Rivara, F. P. (2006). Intimate partner violence: Prevalence, types, and chronicity in adult women.

  American Journal of Preventive Medicine, 30, 447–457.
- U.S. Census Bureau. Sex by marital status for the population 15 years and over (B12002).
  (2010) Retrieved from
  http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\_
  10 1YR B12002&prodType=table.

- Van Horn, C., Zukin, C., Szeltner, M., and Stone, C. (2012). Left out. Forgotten? Recent high school graduates and the great recession. New Brunswick, NJ: John J. Heldrich Center for Workforce Development. Retrieved from:
  <a href="http://www.heldrich.rutgers.edu/sites/default/files/content/Left">http://www.heldrich.rutgers.edu/sites/default/files/content/Left</a> Out Forgotten Work Tr ends June 2012.pdf
- Vest, J. R., Catlin, T. K., Chen, J. J., & Brownson, R. C. (2002). Multistate analysis of factors associated with intimate partner violence. *American Journal of Preventive Medicine*, 22, 156–164.
- Whitaker, D. J., Haileyesus, T., Swahn, M., & Saltzman, L. S. (2007). Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence. *American Journal of Public Health*, 97, 941–947.
- Yllö, K. (1984). The status of women, marital equality, and violence against wives: A contextual analysis. *Journal of Family Issues*, *5*, 307–320.
- Zweig, M. (2004). What's class got to do with it? American society in the twenty-first century. Ithaca, NY: Cornell University Press.

Table 1. Descriptive Analyses of Intimate Partner Aggression, Gainful Activity, and Correlates

Variable (Wave)	<u>Total</u>	Men 275	Women		
	N=648	<i>n</i> =275 %/Mean (SE)	n=373		
	%/Mean (SE)		%/Mean (SE)		
Freq. of aggression (W4) <sup>a</sup>	2.26* (0.01)	2.29 (0.02)	2.24 (0.02)		
Gainful Activity (W4)					
Individual	<b>7.0</b> 0	<b>50.45</b>	<b>50.55</b>		
Man gainfully active (%)	76.39	73.45	78.55		
Woman gainfully active (%)	74.69**	80.00	70.78		
Combination	c4 44	<b>52.4</b> 0	£0.22		
Both gainfully active (%)	61.11	62.18	60.32		
Man active only (%)	15.28*	11.27	18.23		
Woman active only (%)	13.58**	17.82	10.46		
Neither gainfully active (%)	10.03	8.73	10.99		
Relationship (W4)					
Union Type					
Married (%)	10.18	8.36	11.53		
Cohabiting (%)	27.62	24.00	30.29		
Dating (%)	62.19*	67.64	58.18		
Has children (%)	24.69	21.45	27.08		
Relationship duration	6.99** (0.06)	6.75 (0.11)	7.17  (0.07)		
Traditional gender view	2.46***(0.04)	3.00 (0.06)	2.05  (0.05)		
Antisocial Behavior (W4)					
Individual					
Man delinquent (%)	36.41	33.82	38.34		
Woman delinquent (%)	37.81	37.45	38.07		
Combination					
Neither delinquent (%)	50.93	52.36	49.87		
Man delinquent only (%)	11.27	10.18	12.06		
Woman delinquent only (%)	12.65	13.82	11.80		
Both delinquent (%)	25.15	23.64	26.27		
Parental Caring (W1)	19.94 (0.13)	19.98 (0.17)	19.91 (0.18)		
Demographic (W1)					
Family Structure					
Biological parents (%)	48.77	50.18	47.72		
Step-parent (%)	14.81	15.64	14.21		
Single parent (%)	23.15	21.45	24.40		
Other family (%)	13.27	12.73	13.67		
Parent's Education			~ .		
Less than HS (%)	12.35	13.82	11.26		
HS/GED (%)	30.10	33.82	30.83		
Some college (%)	35.34	32.00	37.80		
College or more (%)	20.22	20.36	20.11		
Age	20.64 (0.07)	20.71 (0.11)	20.59 (0.09)		
Race	20.0. (0.07)	201	20.07		
White (%)	63.89**	57.82	68.36		
Black (%)	24.07**	29.827	19.84		
Hispanic (%)	12.04	12.36	11.80		
Female (%)	57.56	12.30	11.00		
a Logged variable	37.30				

Source: Toledo Adolescent Relationships Study

<sup>&</sup>lt;sup>a</sup> Logged variable \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 2. Multiple Linear Regression Predicting Frequency of Any Intimate Partner Aggression (N=648)

Variable (Wave)	Model 1		Mod	Model 2		Model 3		Model 4	
	b	(SE)	b	(SE)	b	(SE)	b	(SE)	
Intercept			2.58***	(0.17)	2.45*	**(0.17)	2.45***	(0.17)	
Gainful Activity (W4)									
Individual									
Man gainfully active	-0.14***	(0.03)	-0.09**	(0.03)					
Woman gainfully active	-0.13***	(0.03)	-0.06*	(0.03)					
Combination (Ref=Both gainfully active)									
Man gainfully active only	0.11**	(0.03)			0.07	(0.03)	0.06	(0.05)	
Woman gainfully active only	0.10**	(0.03)			0.04	(0.03)	0.01	(0.04)	
Neither gainfully active	0.23***	(0.04)			0.16***	(0.04)	0.14*	(0.06)	
Relationship (W4)		` /				` ′		,	
Union type (Ref=Dating)									
Married	0.03	(0.04)	0.04	(0.04)	0.05	(0.04)	0.08	(0.06)	
Cohabiting	0.10***		0.07**	(0.03)	0.07**	(0.03)	0.03	(0.04)	
Has children	0.06*	(0.03)	-0.05	(0.03)	-0.05	(0.03)	-0.05	(0.03)	
Relationship duration	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	
Traditional gender view	0.04***		0.03*	(0.01)	0.03*	(0.01)	0.03*	(0.01)	
Antisocial Behavior (W4)		` '		` ′		, ,		` ′	
Individual									
Man delinquent	0.09***	(0.02)	0.08**	(0.03)					
Woman delinquent	0.05*	(0.02)	0.03	(0.03)					
Combination (Ref=Neither delinquent)		` /		` /					
Man delinquent only	0.11**	(0.04)			0.10**	(0.04)	0.10**	(0.04)	
Woman delinquent only	0.03	(0.04)			0.04	(0.03)	0.04	(0.03)	
Both delinquent	0.09**	(0.03)			0.10***	` /	0.10***		
Parental caring (W1)	-0.01*	(0.00)	-0.01*	(0.00)	-0.01*	(0.00)	-0.01*	(0.00)	
Demographic		(/		()		()		()	
Family structure (Ref=Biological parents)									
Step-parent	0.09**	(0.03)	0.05	(0.03)	0.04	(0.03)	0.04	(0.03)	
Single parent	0.08**	(0.03)	0.01	(0.03)	0.01	(0.03)	0.01	(0.03)	
Other family	0.07*	(0.03)	-0.02	(0.04)	-0.02	(0.04)	-0.02	(0.04)	
Parent's education (ref=HS/GED)		(0100)		(0.0.)	****	(0101)		(0.00.)	
Less than HS	0.09*	(0.04)	0.06	(0.04)	0.06	(0.04)	0.06	(0.04)	
Some college	-0.02	(0.03)	-0.02	(0.03)	-0.02	(0.03)	-0.02	(0.03)	
College or more	-0.07*	(0.03)	-0.02	(0.03)	-0.02	(0.03)	-0.03	(0.03)	
Age	0.00	(0.03)	-0.01	(0.01)	-0.01*	(0.03)	-0.01	(0.01)	
Race (ref=White)	3.00	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	
Black	0.13***	(0.03)	0.10**	(0.03)	0.10**	(0.03)	0.10**	(0.03)	
Diuck	0.13	(0.03)	0.10	(0.03)	0.10	(0.03)	0.10	(0.03)	

Hispanic	0.13***	(0.03)	0.04*	(0.04)	0.08*	(0.04)	0.07*	(0.04)
Female	-0.05*	(0.02)	-0.03	(0.02)	-0.03	(0.03)	-0.03	(0.02)
Interactions								
Man only*married							-0.05	(0.09)
Man only*cohabiting							0.05	(0.07)
Woman only*married							0.01	(0.12)
Woman only*cohabiting							0.10	(0.07)
Neither active*married							-0.08	(0.13)
Neither active*cohabiting							0.09	(0.08)
$R^2$			0.	16	(	0.16	0.17	

\*p</05, \*\*p<.01, \*\*\*p<.001 Source: Toledo Adolescent Relationships Study