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THE PARTY'S OVER: THE INFLUENCE OF SES ON THE ASSOCIATION BETWEEN ALCOHOL USE AND YOUNG ADULT WELL-BEING

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ABSTRACT

Alcohol use has been linked to domestic violence, depression, and weakened educational achievement among adolescents and young adults; however few studies have examined the role of socioeconomic status as an influence on these interrelationships. Drawing on four waves of panel data from the Toledo Adolescent Relationships Study (N = 1,066), the current study presents a within-individual analysis of alcohol use and its effects on educational aspirations and achievement and two problem outcomes--intimate partner violence and depressive symptoms. Results indicate that alcohol use among disadvantaged youths, over the long-term, results in lowered educational aspirations and weaker odds of college attendance, while also increasing levels of intimate partner violence and depressive symptoms, net of controls for social network characteristics, family background and demographic indicators. Long-term alcohol use among more advantaged youths, however, is not significantly related to intimate partner violence and depressive symptoms, and is linked to higher educational aspirations and achievement.

The Party's Over: The Influence of SES on the Association between Alcohol Use and Young Adult Well-Being

Alcohol use and heavy drinking in particular are associated with various forms of violence, including intimate partner violence, and are factors associated with depressive symptoms and school failure among adolescents and young adults (e.g., Abramsky et al., 2010; Boden and Fergusson, 2010; Bu et al., 2001; Felson and Lane, 2010; Gilchrist et al., 2010; Keyes and Hasin, 2008; King et al., 2006; Richardson and Budd, 2003; Xue et al., 2009). However, many adolescents who use alcohol, albeit illegally, do not go on to engage in intimate partner violence, experience detriments to their emotional well-being or declines in educational achievement. In a classic study, Hagan (1991) found that male adolescents whose fathers were employed in white-collar occupations reaped economic benefits, in the long-term, by participating in a "party subculture" that endorsed the use of alcohol, drugs, and various other risky behaviors. Male adolescents with fathers employed in blue-collar occupations were, however, relegated to lower-paid professions for participating in similar behaviors (Hagan, 1991). Hagan (1991) drew distinctions between delinquent and party subcultures as pathways to status attainment, but suggested that deviant behavior, in general, occurs within social networks that are embedded within socioeconomic strata and therefore capable of influencing aspirations and future economic stability. For example, binge drinking and other forms of alcohol abuse present clear potential health risks, but do not appear to dislodge college students and more advantaged adolescents from trajectories that often lead to stable, white-collar, occupations, non-violent romantic relationships, and a favorable mental health profile (Cunradi, Caetano, and Schafer, 2002; Lanza and Collins, 2006; Melchior et al., 2007;

Miech et al., 2007; Miech and Shanahan, 2000). Thus, while adolescents across the range of socioeconomic levels may experiment with alcohol, it is important to explore longer term effects, namely the notion that higher levels of use disproportionately and more negatively influence disadvantaged individuals relative to their counterparts whose use occurs within settings linked to valued cultural and social capital.

Although many studies have examined the connection of alcohol to violence and mental health, much of the research is cross-sectional and relies heavily on samples of college students, a strategy that limits knowledge about how the early use of alcohol may influence the academic success, behavior and emotional well-being of less advantaged individuals (e.g., Jessor et al., 2006). Thus, following the general logic of Hagan's study, we explore the idea that effects of alcohol are not uniform, but are influenced by the individual's socioeconomic position Drawing on four waves of panel data that include youths from upper and lower-income homes, the current study presents a within-individual analysis of alcohol use, and effects on problem (intimate partner violence, depression) and positive (educational aspirations and achievement) outcomes across the period of adolescence to young adulthood.

BACKGROUND

A party lifestyle that includes high levels of alcohol use is not necessary for relationships to become violent or for experiencing depressive systems, and given the levels of drinking among college students, the abuse of alcohol is certainly not a problem reserved for the 'lower classes' (Lanza and Collins, 2006; Maggs et al., 2008; Wiles et al., 2007). However because of its legal status, alcohol is the only intoxicating substance to which

all adults over twenty-one years of age have equal access. The general availability of alcohol makes it a preferred substance of use and potential abuse for millions of adults and therefore deserves scrutiny as a complicating factor for quality of life in early adulthood. Alcohol has, in fact, been implicated, sometimes as a causal factor, in the etiology of relationship violence and depressive symptoms, and has the potential to undermine educational aspirations (Abramsky et al., 2010; Boden and Fergusson, 2010; Felson and Lane, 2010; Gilchrist et al., 2010; Jeynes, 2006; King et al., 2006; Keyes and Hasin, 2008; Wiersma et al., 2010; Zeng-yin and Kaplan, 2003). However the effects of alcohol may not be uniform, but instead may vary according position in the larger social structure.

Mason and colleagues (2010), for example, found that juvenile delinquency was a better predictor of adult crime for youths from lower-income homes than for youths with more stable economic backgrounds (Mason et al., 2010). Furthermore, Wright and colleagues (1999) found that adolescents with high SES backgrounds reported more favorable attitudes toward risk-taking in general than their less advantaged peers, but that the latter nevertheless reported higher levels of aggressiveness and perceived alienation (Wright et al., 1999). Wright et. al (1999) and Mason et. al (2010) did not focus exclusively on alcohol, nor did they explore the potential of adolescent risk behavior to influence later relationship violence and depressive symptoms; yet the findings of their research, along with Hagan's earlier work (1991), support the utility of exploring further the degree to which early socioeconomic position may interact with lifestyle choices to produce disparate effects on the quality of life in early adulthood.

SOCIAL NETWORKS

In attempting to gauge the degree to which the effects of intoxicating substances such as alcohol are contingent upon socioeconomic factors, it is important to highlight that alcohol use in adolescence and the early adult years typically involves company. Research has clearly demonstrated that behaviors such as alcohol use and delinquency more generally are highly social during this period, typically involving friends and over time incorporating romantic partners (Balsa et al., 2011; Knecht et al., 2011; Kreager and Haynie, 2011; Kreager et al., 2011; Pearson et al., 2006; Varela and Pritchard, 2011). To the degree that they affiliate with similarly disadvantaged peers, less favorably positioned youths who drink heavily may experience harsher consequences than their more advantaged peers, in part, because they are marginalized from social networks that reward achievement in high school, aspirations for college, as well as serving as connections for future employment opportunities (e.g., Granovetter, 1973; Hagan 1991). In turn, socializing with similarly situated lower SES youth who are oriented toward frequent partying may reinforce norms such as the legitimacy of casual sexual involvement (Seffrin et al., 2011) or the use of aggression as a means of solving interpersonal conflicts (Wilkinson and Hamerschlag, 2005).

Social learning theories of deviance, such as Sutherland's (1947) theory of differential association, have traditionally viewed peer interactions as reinforcing social definitions of what is 'deviant' and what is 'conforming.' While studies of peers and alcohol use have typically focused on peer attitudes about substance use and their own levels of use (Crawford and Novak, 2001; Hawkins et al., 1992; Mason and Windle, 2001; Trucco et al., 2011; Vega et al., 1993; Xue et al., 2009), adolescents who drink

together exchange more than definitions favorable or unfavorable to the use of alcohol. Co-participation in social deviance with other middle-class, presumably 'college-bound,' peers may, in fact, reinforce aspirations for education attainment (Dennis et al., 2005; Ewijka and Sleegers, 2010) and involvement in structured activities that help to solidify traditional success trajectories (i.e., attending school functions, becoming involved in school based organizations and/or teams). However, for disadvantaged youths, who have only limited contact with middle-class peers, the use of alcohol in a social context is not likely to improve chances of achieving a 'middle-class' status in adulthood, but instead may add to a growing sense of distance from these social institutions and a belief that upward social mobility may not be possible (Hagan, 1997; Willis 1977). A continued pattern of social involvement centered on partying may contribute to instabilities within romantic relationships and all of these experiences may combine to affect the individual's emotional well-being across the transition from adolescence to young adulthood.

ALCOHOL AND WELL-BEING

The quality of relationships that develop with the opposite sex is a particularly important outcome of interest as prior research suggests that a stable heterosexual union is often an indicator of stability in other life areas including economic, social, and psychological dimensions of the individual (Duncan, Wilkerson, and England, 2006; Laub and Sampson, 2003). As individuals transition from adolescence into adulthood more serious romantic relationships are likely to develop along with more opportunities for relationship conflict. Indeed, self-report data and official statistics indicate that these periods represent peaks in the prevalence of intimate partner violence (Catalano 2007;

Hagan and Foster, 2001). Prior research indicates that alcohol is implicated in the onset and escalation of IPV, but mechanisms are not well understood (Graham et al., 2011). Alcohol is thought to lower inhibitions, and may also be associated with verbal conflict and other relationship dynamics that are known risk factors for intimate partner violence (Exum, 2006; Hagan and Foster, 2001; Norström, and Pape, 2010; Felson and Lane, 2010; Felson et al., 2008; Leonard, 2005). Further, prior research has shown that disadvantaged youths are more likely than their advantaged counterparts to be exposed to multiple forms of violence within the home, school and neighborhood contexts (e.g., Browning, 1997; Harding, 2009; Macmillan and Harding, 2004) and thus alcohol may be riskier for those whose biographies include these backgrounds of exposure to violence as a conflict resolution strategy (e.g., Cunradi et al., 2002).

The connection of alcohol use to interpersonal violence also implies a more general relationship between substance use and mental health (e.g., Keyes and Hasin, 2008). A recent meta-analysis of the research literature concludes that while depression may increase drinking levels, an even more important dynamic may be the role of alcohol in changes in depressive affect (Boden and Fergusson, 2011). Moreover, research suggests that binge drinking, the kind of heavy drinking that is associated with youth party cultures, is particularly risky for depression because of the intense hang-over, loss of sleep, and related physical traumas that result from drinking large quantities of alcohol (Paljärvi et al., 2009). While largely unexplored in prior research, an intuitive hypothesis is that disadvantaged youths, who may already have limited access to educated and upwardly mobile social networks and fewer opportunities to attain economic success,

may experience an increasingly negative or depressed mood as a result of their pattern of heavy alcohol use.

In short, the use of alcohol does not occur within a social vacuum. The adolescent's socioeconomic position structures access to social networks which can foster or prove limiting to academic aspirations and achievement. In addition, prior research has shown that disadvantaged adolescents are exposed early on to a range of forms of violence and other types of problem behaviors. Thus, in later situations involving conflict and the exacerbating influence of alcohol, lower status individuals may be more likely than their advantaged counterparts to resort to violence as a strategy for solving conflicts with an intimate partner. Finally, the many forms of disadvantage that accompany location in the social structure may be keenly felt in adolescence, but may be perceived as even more consequential during young adulthood, when economic independence is an expected centerpiece of this transition. Against the backdrop of concrete disadvantages ranging from housing insecurities to relationship dissolutions, alcohol use may be expected to have a more deleterious influence on perceived emotional well-being of those individuals less favorably positioned. Here the use of alcohol may bring to the fore negative feelings and emotions about these circumstances, and continued use itself may compromise further these aspects of adult well-being (i.e., negatively influence job stability).

THE CURRENT STUDY

While there is an extensive body of research on the risks associated with alcohol use, few studies have examined the degree to which these risks are class-contingent. In addition,

few prior studies have examined the role of social networks as influences on the long-term risks associated with alcohol use. These limitations are inherently intertwined, as the adolescent's location in the larger social structure strongly influences the landscape for choosing friends and romantic partners. Nevertheless, even within a particular SES context, affiliations and normative climates vary. Thus, in the current study we examine the academic orientation of friends and educational status of romantic partners (college enrolled and/or college educated) as two sources of social capital that may influence the likelihood that alcohol use is associated with negative developmental outcomes. We hypothesize that 1) the effect of alcohol on problem and positive outcomes in early adulthood is itself conditioned by respondents' early socioeconomic positions; and 2) social network characteristics that are related to academic achievement account for some of the class-related disparity in alcohol's influence on quality of life in early adulthood. We focus our analyses on academic aspirations and achievement, as well as variations in emotional well-being and the experience of intimate partner violence.

DATA

This research utilizes four waves of panel data from the Toledo Adolescent Relationships Study (TARS), which is based on a stratified random sample of adolescents and their parents/guardians. The TARS data were collected in the years 2001, 2002, 2004, and 2006 and contain detailed information on interpersonal relationships with parents, peers, and romantic partners.[1] The sampling frame of the TARS study encompassed 62 schools across seven school districts. The initial sample was in grades 7th, 9th, and 11th. Students did not have to attend school to be included in the study. The stratified, random

sample was devised by the National Opinion Research Center and includes over-samples of African American and Hispanic adolescents. The initial sample included 1,316 respondents and wave 4 retained 1,088 valid respondents, or 83% of wave 1. The average age of the respondents was 15 years at wave 1 and 21 years at wave 4. The average time interval separating the first wave from the fourth wave is about 61 months. The analytic sample (N= 1,066) is based primarily on respondents who participated in all four waves of the TARS study.[2]

MEASURES

Dependent Variables:

Educational Aspirations and Achievement

Educational aspirations are measured in all four waves with a single item that asks "How far do you think you will go in school?" Responses range from (1) "drop out before graduating high school" to (5) "go to graduate or professional school." Educational achievement "college attendance" is measured in all four waves with a dichotomous variable: (1) "college enrolled" and (0) "not college enrolled."

Intimate Partner Violence

Intimate partner violence is measured in all four waves with a 4-item scale adapted from previous conflict tactic scales (e.g., Straus et al., 1996). The scale asks respondents how often they pushed, slapped, hit, or threw something at a current or recent romantic partner. Responses range from (0) "never" to (4) "very often." At each wave, respondents who reported no involvement in romantic relationships were recorded as having "0" incidents of intimate partner violence. Cronbach's alpha for the scale is .88.

Depressive Symptoms

Depressive symptoms are measured in all four waves with a 7-item scale adapted from the widely used Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). The scale assesses symptoms of depression in the general population. The items include responses to the statement "How often was each of the following true in the past seven days: "felt like you couldn't get going;" "could not shake off the blues;" "had trouble keeping your mind on what you were doing;" "felt lonely;" "felt sad;" "had trouble sleeping;" and "felt everything was an effort." Responses range from (0) "never" to (7) "everyday." The scale reflects the mean of these items. Cronbach's alpha is .78.

Independent Variables:

Alcohol Use

Self-reported alcohol use is measured in all four waves with a single item that asks "in the past 12 months, how often have you drunk alcohol?" Responses range (0) "never" to (8) "more than once a day."

Social Networks

Friends' academic orientation is measured in all four waves with a single item that asks respondents if their friends think that "good grades are important." Responses range (1) "strongly disagree" to (5) "strongly agree." Romantic partners in college are measured in all four waves with a dichotomous variable: (1) "romantic partner in college" and (0) "romantic partner not in college." At each wave, respondents who reported no involvement in romantic relationships were recorded as (0), not in a relationship with a

romantic partner who is in college (see Figures 1-2 below for a descriptive account of the independent and dependent variables).

Socioeconomic Status

"Disadvantage" is measured at wave 1 with four items from the parent survey. Items refer to parents who reported less than twelve years of education, receiving government assistance for needy families (e.g., TANF, food stamps, or a housing subsidy), not having enough money to make a meal in the past 12 months, and unemployment as a "problem" in their neighborhood. The content of these items is consistent with previous work that suggests measuring socioeconomic status with educational, economic, and neighborhood indicators (Krieger, Williams, and Moss, 1997). These items were summed into an index of disadvantage which ranges from 0 to 4. Thirty-six percent of the parents in the sample reported none of these socioeconomic problems (labeled advantaged), while about 20 percent reported three or more problems (labeled disadvantaged).

Family Background and Demographic Indicators

Family background and demographic indicators are measured at wave 1. Variations in parental bonding and parental violence have consistently been shown to influence the child's own violent behavior, mental health, and educational outcomes (e.g., Demuth and Brown, 2004; Hawkins et al., 1992). "Parental bonding" is measured with a 3-item scale that includes: "My parents give me the right amount of affection; "My parents trust me;" and "I feel close to my parents." Cronbach's alpha for the scale is .80. The scale range is (1) "strongly disagree" to (5) "strongly agree," with an average of 4.07. "Parental violence" is measured with a single item that asks respondents how often their parents pushed, grabbed, slapped, or hit them. Responses range from (0) "never" to (5) "every

day," with an average of 0.39. Family structure is represented with four dummy variables: two-parents (51.4%), single parent (22.8%), step parent (13.7%), and other family form (12.1%) with two-parents as the reference category. Race/Ethnicity is represented with three dummy variables: White (65%), Black (24%), and non-White Hispanic/Latino (11%), with White as the reference category. Gender distribution in the sample is 49% male, 51% female. Age of respondents is measured in years at each wave.

Time

The longitudinal design of the current study requires that time-varying observations are demarcated in terms of the length of time that has elapsed between waves. Time is clocked by the number of *months* since the first interview. All respondents have a value of zero for time at first interview and then vary from one another for the three follow-up interviews.

ANALYTIC STRATEGY

First, we compare life course patterns of alcohol use among SES advantaged and disadvantaged youths. The two SES groups are then analyzed in terms of the character of their social networks, intimate partner violence, depressive symptoms, and educational aspirations and achievement. Third, regression analysis is used to examine changes in alcohol use on changes in intimate partner violence, depression, and educational aspirations and achievement, net of controls for social networks, family background, and demographic variables. The effect of alcohol use is modeled throughout the regression analysis as a variable dependent on wave 1 socioeconomic status. For all dependent variables, except for educational achievement, we use an HLM regression, or mixed

model approach, to analyze the effects of alcohol (e.g., Raudenbush and Bryk, 2002; Singer and Willett, 2003). With this mixed model approach, the variable representing time (months into study) and the intercept are modeled as fixed effects (level 2 of the HLM model) with random variance components (level 1 of the HLM model). By allowing the intercept to have a random variance component, we model the differences in the estimate of error between-individuals (i.e., heterogeneity), and by allowing time to have a random variance component, we model the differences in the estimate of error within-individuals (i.e., over time). Random variance components for the intercept and time are usually statistically significant which indicates variance unexplained by the model. The influence of alcohol use and social networks are modeled as within-individual variables (i.e., the between-individual averages of these variables subtracted from each time-ordered observation). Between-individual components for these variables are included in the analysis but are not shown in the models below. The within-individual effects are interpreted as the estimated change in Y given a change in X. Analysis of educational achievement relies on a binomial indicator of "college attendance," which is modeled using a general estimating equation (GEE) that allows for changing values in the dependent variable (Carey, Zeger, and Diggle, 1993). The GEE model for binomial variables uses a logit to estimate the influence of social network characteristics on the odds of college attendance. Parameter estimates from the GEE model can be expressed as a power of '*e*' for a percent increase interpretation on the odds of college attendance, similar to a standard binary logistic regression. For purposes of establishing causal relationships, these statistical approaches are well suited for the current study because 1) they control for unobserved correlations between the

independent and dependent variables (e.g., the tendency of college-bound students to date partners who are also in college) and 2) they are a good-fit theoretically given that adolescence is a period defined by novelty and change (e.g., the development of romantic relationships).

RESULTS

Figure 1 displays the estimated mean level of alcohol use among advantaged and disadvantaged youths at 15, 16, 18, and 21 years (the average age at each interview). The two groups drink similar amounts of alcohol in early adolescence; however by age twenty-one, advantaged youths drink more than disadvantaged youths. These findings suggest that between-group differences in alcohol use are not likely to explain between-group differences in the various dimensions of quality of life for advantaged and disadvantaged youths.

[Figure 1 here]

Figure 2 displays standardized means for intimate partner violence, depressive symptoms, educational aspirations, and friends' academic orientation. The means are shown for respondents at wave 1 (average 15 years) and wave 4 (average 21 years). Disadvantaged youths report higher mean levels of intimate partner violence and depressive symptoms at 15 and 21 years of age; however, the largest disparity between these two groups is in educational aspirations. This suggests that disadvantaged youths are, in general, not likely to perceive themselves as individuals pursuing an education beyond high school, whereas the aspirations of more advantaged youths suggests that they expect to experience at least a year or two of post-secondary education, and are likely, in fact, to meet this expectation. Furthermore, disparities between advantaged and disadvantaged

youths increase over time for all measures shown in Figure 2. For example, while in wave 1 there is essentially no difference between advantaged and disadvantaged adolescents regarding the opinion of friends on the importance of good grades, in wave 4 the mean for advantaged youths has increased while the mean for disadvantaged youths has decreased. In an analysis not shown, we examined the percent of advantaged and disadvantaged youths who, at any point of the study, reported dating a romantic partner who was college enrolled and/or college educated, and the percent of respondents who attended college. Over fifty-percent of advantaged youths report dating a romantic partner who went to college while less than twenty-five-percent of disadvantaged youths report the same experience. Approximately forty-seven percent of advantaged youths report attending college (or some post-secondary education), whereas only about fourteen-percent of disadvantaged youths report attending college.

In the regression analysis that follows, we examine the hypothesis that the effect of alcohol use is contingent on socioeconomic status in childhood; and secondly that social network characteristics account for some of the SES disparities in the effects of alcohol on quality of life in early adulthood. We explore these possibilities first with the education-related variables, self-reported aspirations and college attendance. Table 1, Model 1 estimates the within-individual effects of alcohol use for advantaged and disadvantaged youths, net of controls for wave 1 variables. This was done with a two-way interaction between wave 1 socioeconomic disadvantage and the within-individual effect of alcohol (between-individual effects of alcohol are not shown in the models). For youths who came from a home that was relatively advantaged, the effect of using alcohol is positive and statistically significant, which suggests that using alcohol is

associated with higher educational aspirations. Re-estimating the model for disadvantaged youths reveals the opposite, namely that drinking lowers educational aspirations. Table 1, Model 2 estimates the within-individual effects of social networks on educational aspirations (between-individual effects of social networks are not shown in the models). Results indicate that friends' academic orientation is statistically significant for educational aspirations as is dating someone who is in college. Controlling for these network characteristics in Model 2 appears to only partially account for the negative influence of wave 1 disadvantage on educational aspirations. Model 3 adds the interaction between wave 1 socioeconomic disadvantage and alcohol use. Despite controlling for variations in social networks, the effects of alcohol use on educational aspirations remain quite different for advantaged and disadvantaged youths. [Table 1]

The general estimating equation models in Table 2 explore the influence of alcohol use on the odds of attending college. The partial effects of alcohol use in Model 1 indicate that the effect of alcohol use on college attendance is positive for advantaged youths and negative for disadvantage youths. Model 2 suggests that friends' academic orientation does not influence the odds of college attendance, whereas dating someone in college increases the odds of college attendance by over two-hundred percent ([$e^{1.135}$ - 1] x 100). While it is possible that going to college and dating a college student are endogenous variables, by controlling for between-individual components (not shown in table) and analyzing the within-individual effects of dating, we are afforded some confidence that dating a college student really does increase the odds of attending college, or at least increases the odds of remaining enrolled in college relative to

individuals not dating a college student. Controlling for social networks does not substantially change the relationship between wave 1 disadvantage and college attendance; highly disadvantaged youths have lower odds of college attendance regardless of social networks influences. Model 3 re-estimates the effect of alcohol use, net of controls for social networks. Increases in alcohol use from one wave to the next raises the odds of college attendance by approximately 17 percent for advantaged youths; for disadvantaged youths the odds of college attendance is decreased by approximately 20 percent if levels of alcohol use increase.

[Table 2]

Table 3 and Table 4 present the within-individual analysis for intimate partner violence and depressive symptoms, respectively. Among disadvantaged youths, increasing levels of alcohol use are associated with higher levels of intimate partner violence and depressive symptoms, net of controls for family background and demographic indicators. This is not the case, however, for advantaged youths whose levels of intimate partner violence and depression are statistically unaffected by increasing levels of alcohol use. Model 2 in Table 3 and Table 4 estimates the effect of social networks as well as educational aspirations and achievement on intimate partner violence and depressive symptoms, respectively. Results indicate that variables representing potential for upward social mobility are, generally, negatively related to intimate partner violence and depressive symptoms. Self-reported college attendance is not statistically significant in either model, however dating a college educated partner reduces intimate partner violence and lowers depressive symptoms. Further, by comparing beta estimates for SES in models with and without controls for social networks and education variables, the

analysis suggests that the effect of wave 1 disadvantage on violence and depression is accounted for by differences in social networks and educational aspirations. This implies that lower SES youths, who have high educational aspirations and manage to date a college-educated romantic partner, may in turn experience levels of intimate partner violence and depressive symptoms that parallel the more favorable experiences of advantaged youths. Finally, Model 3 shows that even after controlling for social networks and educational characteristics, the effect of alcohol use on intimate partner violence and depressive symptoms is class-contingent; among the disadvantaged, alcohol increases violence and raises depressive symptoms, whereas no such effect is detected among relatively more advantaged youths.[3]

[Table 3] [Table 4]

DISCUSSION

Adolescence and young adulthood are consequential periods of the life course, as individuals work to: a) achieve economic independence, b) develop a satisfying relationship with an intimate partner, and c) increase feelings of self- contentment and emotional well being. Research has documented that while these transitions have become elongated and potentially more precarious than in previous eras (i.e., the notion of an in-between phase of emerging adulthood— see Arnett, 2000), the uncertainties may be most keenly experienced by disadvantaged youth (see e.g., Osgood et al., 2005). The current study adds to this body of research on the adolescent to adult transition period by examining the degree to which socioeconomic position may interact with lifestyle choices to produce disparate effects on early adult quality of life. Analyses explored the extent to which the long-term effects of alcohol are contingent upon the individual's early

socioeconomic circumstances. The findings suggest that alcohol use among disadvantaged youths decreases educational aspirations and lowers the odds of college attendance, while increasing intimate partner violence and depressive symptoms. This is not the case, however, for youths who are relatively advantaged. For the more advantaged youth, not only are intimate partner violence and depressive symptoms unaffected by the use of alcohol, the more that advantaged youths drink, the higher their educational aspirations and odds of college attendance. This study also explored the possibility that certain social network characteristics, namely those associated with upward social mobility (friends who believe that good grades are important; dating someone who is college enrolled), might account for some of the class-disparity in alcohol's influence on quality of life in early adulthood. While the findings suggest that the effects of economic deprivation on violence and depression are mediated through social networks, the use of alcohol continues to show a class-contingent effect even after social network influences have been taken into account. In sum, these findings suggest that when viewed from a longitudinal perspective, for highly disadvantaged youths who drink heavily, the 'party' appears to be over in early adulthood as indicated not only by leveled aspirations for educational attainment, but also by the growing problems of intimate partner violence and depressive symptoms. That the more advantaged youth do not appear to experience severe negative effects (and in some respects to derive a 'benefit') from their use of alcohol may seem at first unlikely given the warnings often directed at youths to limit drinking; however the findings do fit well with previous research that has examined class-contingent effects (Hagan, 1991; Mason et al., 2010). The current study contributes beyond this prior work by examining a broader range of

developmental outcomes for which alcohol is known to be associated, finding that it is the socioeconomic status of an individual, and not necessarily the amount of drinking alone, that determines the effect of alcohol on quality of life in early adulthood. To be sure, heavy drinking over the life-course presents clear potential health risks regardless of socioeconomic beginnings, the consequences of which may not surface until middle or later adulthood (e.g., physical health problems; job performance; marital instability). Nevertheless, the current results indicate that when examining several indicators associated with a successful transition, effects of alcohol use on several important domains appear to fall disproportionately on those youths who must navigate the period within disadvantaged social contexts.

In some respects, the results of this study are similar to a long tradition of prior sociological research demonstrating that disadvantaged social status decreases the individual's odds of academic achievement, influences relationship quality and stability, and undermines emotional well-being. However, the current findings are potentially useful in pointing to the impact of lifestyle choices, namely alcohol use, which can further undermine or exacerbate these generally observed trends. Conversely, disadvantaged youths who avoid excessive use of alcohol (and ideally socialize with peers who value academic achievement) will tend to be better positioned with regard to each of these outcomes. Thus, while many college campuses offer prevention programs focused on excessive alcohol use, targeting disadvantaged youths early in the life course would appear to be a high priority. A number of cross-sectional studies have demonstrated that alcohol use and even heavy use are not concentrated within or unique to lower SES youth (e.g., Lanza and Collins, 2006; Mulia et al., 2008; Wiles et al.,

2007). However, the longitudinal perspective we relied upon in the current study shows differential costs to frequent use.

The current study was limited to an assessment of alcohol and class-contingent effects, but future research could also explore whether longer term drug use effects similarly vary by socioeconomic context. Considering the broad social acceptance of alcohol use, it is possible that involvement in drug-using subcultures is more ecumenical in its negative effects on the character of the adolescent to adult transition experience. Additional research is also needed on the interrelated nature of the outcomes (e.g., depression, use of alcohol, intimate partner violence) that we considered separately in the current analysis. Future research could also explore more fine-grained assessments of each of these domains, perhaps with shorter measurement intervals, that may well demonstrate (for example) deleterious effects on the educational circumstances, relationship experiences, and levels of depression of advantaged youths as well as on the life chances and well-being of less advantaged youths.

Notes

[1]Based on Census data, the socio-demographic characteristics of the Toledo metropolitan area closely parallel those of the nation in terms of race (13% in the Toledo MSA and 12% in the U.S. are African American); education (80% in the Toledo MSA and 84% in the U.S. are high school graduates); median family income ($50,046 in the Toledo MSA and $50,287 in the U.S.); and marital status (73.5% in the Toledo MSA and 75.9% in the U.S. are married couple families). Structured interviews were conducted for using laptop computers and software that contained the survey items. The sampling frame was divided into 18 strata by grade, race/ethnicity, and sex. When students who were initially selected dropped out of the study, the sample was expanded by selecting the "next" unselected student from the same stratum. Sampling weights were calculated based on the inverse probability of selection.

[2] There are 1,088 respondents who participated in the first and fourth waves of the TARS study. Logistic regression revealed that age at wave 1 is positively related to the likelihood of missing data in subsequent waves however the strength of this relationship is not substantial. Twenty-two respondents who identified as a minority other than Black or Hispanic were deleted because of the statistical and theoretical difficulties in comparing this small subset of respondents to the rest of the sample. Of the remaining 1,066 respondents in the analytic sample, over 94 percent also participated in all waves 2 and 3; the missing cases represent less than 2 percent of the total number of person-period observations in the study.

[3] Models for intimate partner violence were re-estimated using a general violence indicator as the dependent variable: “How often have you attacked someone with the idea of seriously hurting him/her?” The results of this analysis (not shown) were similar to the findings for intimate partner violence; higher levels of alcohol use increased general violence more so for disadvantaged youths than for advantaged youths (results available upon request).

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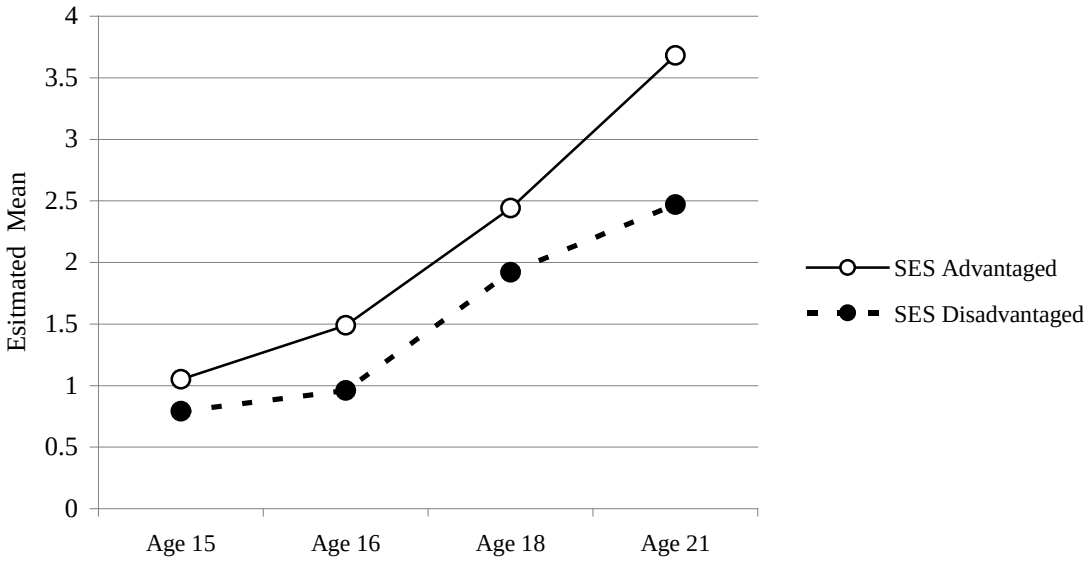
Fg. 1 Trajectories of Alcohol Use by SES



Fg. 2 Well-Being and Social Network Characteristics in Adolescence and Young Adulthood

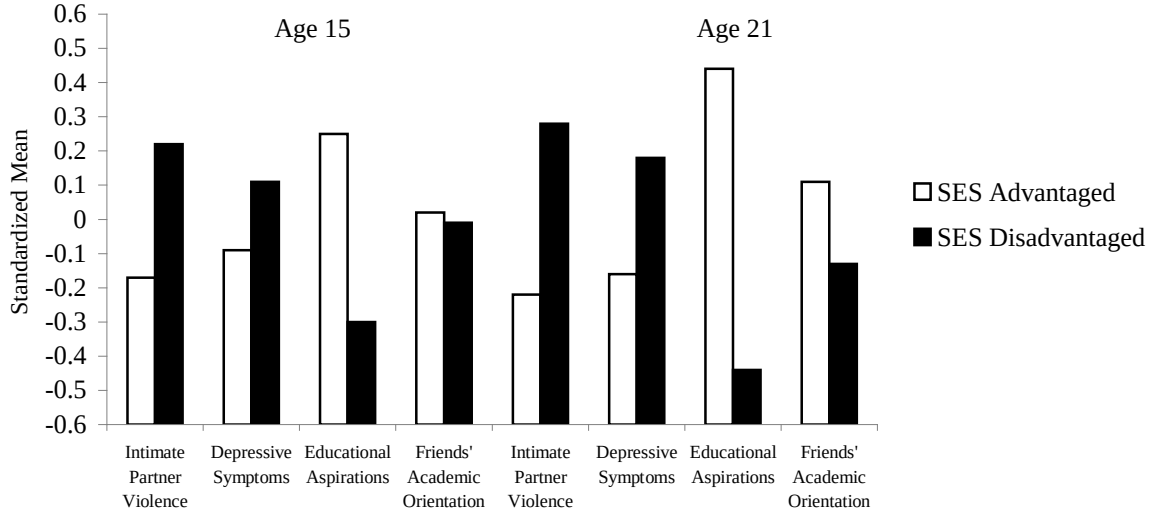


Table 1. HLM: Within-Individual Analysis of Alcohol Use and Educational Aspirations

	Educational Aspirations					
	b	S.E.	b	S.E.	b	S.E.
	Model 1		Model 2		Model 3	
Alcohol Use & SES						
Alcohol Use x Socioeconomic Disadvantage	-0.034***	0.007			-0.028***	0.007
Alcohol Use: SES Advantaged [a]	0.037**	0.013			0.030*	0.013
Alcohol Use: SES Disadvantaged [b]	-0.065***	0.016			-0.055***	0.016
Social Networks						
Friends' Academic Orientation			0.065***	0.019	0.060**	0.019
Romantic Partner in College			0.289***	0.047	0.266***	0.047
Control Variables						
Socioeconomic Disadvantage [c] (with controls for social networks)	---		-0.167***	0.020	---	
Socioeconomic Disadvantage [d] (w/o controls for social networks)	---		-0.210***	0.021	---	
Family Background						
Parental Bonding	0.121***	0.035	0.051*	0.033	0.051*	0.033
Parental Violence	0.008	0.033	0.000	0.031	0.000	0.031
Single-Parent	-0.190*	0.060	-0.128*	0.057	-0.129*	0.057
Step-Parent	-0.129	0.070	-0.117	0.065	-0.118	0.066
Other Family Structure (Two Bio-Parents)	-0.459***	0.077	-0.400***	0.073	-0.401***	0.073
Demographic Indicators						
Black	0.101	0.062	0.077	0.058	0.079	0.059
Hispanic/Latino (White)	-0.196*	0.076	-0.122	0.072	-0.122	0.072
Male (Female)	-0.318***	0.045	-0.245***	0.043	-0.245***	0.044
Age	-0.050***	0.015	-0.081***	0.013	-0.082***	0.014
Rates of Change						
Months	-0.004***	0.001	-0.006***	0.001	-0.006***	0.001
Random Variance Components:						
Intercept	0.372***	0.033	0.335***	0.031	0.335***	0.031
Months	0.0001**	0.000	0.0001**	0.000	0.0001**	0.000
R-square	0.153		0.212		0.214	
N = 1,066						

Notes: [a,b,c,d] Estimated in separate models. Partial effects for socioeconomic disadvantage are estimated but are not shown. Between-individual effects are included in the models but are not shown. Comparison categories appear in parentheses. Intercepts for the fixed effects portion of the model are estimated but are not shown. p.*<.05, **<.01, ***<.001.

Table 2. GEE Models: Within-Individual Analysis of Alcohol Use and Educational Achievement

	College Attendance					
	b	S.E.	b	S.E.	b	S.E.
	Model 1		Model 2		Model 3	
Alcohol Use & SES						
Alcohol Use x Socioeconomic Disadvantage	-0.123***	0.033			-0.123**	0.037
Alcohol Use: SES Advantaged [a]	0.162**	0.051			0.155**	0.057
Alcohol Use: SES Disadvantaged [b]	-0.207**	0.080			-0.213*	0.092
Social Networks						
Friends' Academic Orientation			0.104	0.095	0.092	0.096
Romantic Partner in College			1.135***	0.184	1.073***	0.185
Control Variables						
Socioeconomic Disadvantage [c] (with controls for social networks)	---		-0.430***	0.061	---	
Socioeconomic Disadvantage [d] (w/o controls for social networks)	---		-0.483***	0.061	---	
Family Background						
Parental Bonding	0.044	0.089	-0.065	0.089	-0.067	0.090
Parental Violence	0.027	0.091	0.054	0.088	0.057	0.088
Single-Parent	-0.111	0.155	-0.023	0.153	0.000	0.154
Step-Parent	-0.333	0.193	-0.347	0.191	-0.338	0.191
Other Family Structure (Two Bio-Parents)	-1.149***	0.273	-1.107***	0.270	-1.097***	0.271
Demographic Indicators						
Black	-0.148	0.175	-0.107	0.170	-0.129	0.172
Hispanic/Latino (White)	-0.838**	0.248	-0.621*	0.243	-0.643**	0.245
Male (Female)	-0.339**	0.116	-0.330*	0.119	-0.329*	0.121
Age	0.573***	0.042	0.522***	0.040	0.539***	0.042
Rates of Change						
Months	0.055***	0.003	0.046***	0.004	0.045***	0.035
R-square						
N = 1,066						

Notes: [a,b,c, d] Estimated in separate models. Partial effects for socioeconomic disadvantage are estimated but are not shown. Between-individual effects are included in the models but are not shown. Comparison categories appear in parentheses. Intercepts are estimated but are not shown. p.*<.05, **<.01, ***<.001.

Table 3. HLM: Within-Individual Analysis of Alcohol Use and Intimate Partner Violence

	Intimate Partner Violence					
	b	S.E.	b	S.E.	b	S.E.
	Model 1		Model 2		Model 3	
Alcohol Use & SES						
Alcohol Use x Socioeconomic Disadvantage	0.055***	0.015			0.045**	0.015
Alcohol Use: SES Advantaged [a]	-0.049	0.029			-0.029	0.029
Alcohol Use: SES Disadvantaged [b]	0.115***	0.034			0.106**	0.035
Social Networks and Education						
Friends' Academic Orientation			-0.005	0.041	0.005	0.041
Romantic Partner in College			-0.496***	0.107	-0.477***	0.107
Educational Aspirations			-0.051	0.040	-0.045	0.040
College Attendance			-0.053	0.107	-0.019	0.108
Control Variables						
Socioeconomic Disadvantage [c] (with controls for social networks and education)	---		0.050	0.036	---	
Socioeconomic Disadvantage [d] (w/o controls for social networks and education)	---		0.111***	0.034	---	
Family Background						
Parental Bonding	-0.099	0.056	-0.104	0.057	-0.081	0.057
Parental Violence	0.128*	0.053	0.134*	0.053	0.130*	0.053
Single-Parent	0.225*	0.097	0.209*	0.097	0.180	0.097
Step-Parent	-0.036	0.112	-0.060	0.112	-0.079	0.111
Other Family Structure (Two Bio-Parents)	0.299*	0.125	0.152	0.127	0.161	0.126
Demographic Indicators						
Black	0.513***	0.101	0.456***	0.099	0.525***	0.100
Hispanic/Latino (White)	0.205	0.123	0.144	0.123	0.141	0.123
Male (Female)	-0.296***	0.073	-0.362***	0.075	-0.377***	0.075
Age	0.049*	0.024	0.094***	0.025	0.061*	0.027
Rates of Change						
Months	0.004**	0.001	0.008****	0.001	0.007***	0.002
Random Variance Components:						
Intercept	0.517***	0.109	0.517***	0.109	0.504***	0.108
Months	0.0000	0.000	0.0000	0.000	0.0000	0.000
R-square	0.066		0.076		0.082	
N = 1,066						

Notes: [a, b, c ,d] Estimated in separate models. Partial effects for socioeconomic disadvantage are estimated but are not shown. Between-individual effects are included in the models but are not shown. Comparison categories appear in parentheses. Intercepts for the fixed effects portion of the model are estimated but are not shown. p.*<.05, **<.01, ***<.001.

Table 4. HLM: Within-Individual Analysis of Alcohol Use and Depressive Symptoms

	Depressive Symptoms					
	b	S.E.	b	S.E.	b	S.E.
	Model 1		Model 2		Model 3	
Alcohol Use & SES						
Alcohol Use x Socioeconomic Disadvantage	0.030***	0.008			0.024**	0.009
Alcohol Use: SES Advantaged [a]	0.022	0.016			0.029	0.017
Alcohol Use: SES Disadvantaged [b]	0.111***	0.020			0.101***	0.018
Social Networks and Education						
Friends' Academic Orientation			-0.049*	0.023	-0.036	0.023
Romantic Partner in College			-0.121*	0.061	-0.123*	0.061
Educational Aspirations			-0.051*	0.023	-0.046*	0.023
College Attendance			-0.059	0.061	-0.051	0.061
Control Variables						
Socioeconomic Disadvantage [c] (with controls for social networks and education)	---		0.032	0.027	---	
Socioeconomic Disadvantage [d] (w/o controls for social networks and education)	---		0.077**	0.026	---	
Family Background						
Parental Bonding	-0.255***	0.043	-0.228***	0.043	-0.211***	0.043
Parental Violence	0.180***	0.041	0.193***	0.040	0.191***	0.040
Single-Parent	0.032	0.074	0.004	0.074	-0.017	0.073
Step-Parent	0.145	0.086	0.123	0.085	0.110	0.085
Other Family Structure (Two Bio-Parents)	0.048	0.095	-0.058	0.096	-0.055	0.096
Demographic Indicators						
Black	0.033	0.077	0.017	0.075	0.065	0.076
Hispanic/Latino (White)	-0.080	0.094	-0.137	0.094	-0.140	0.093
Male (Female)	-0.196***	0.055	-0.276***	0.057	-0.286***	0.057
Age	-0.020	0.018	0.024	0.019	0.000	0.020
Rates of Change						
Months	-0.001	0.001	0.002*	0.001	0.000	0.001
Random Variance Components:						
Intercept	0.508***	0.047	0.500***	0.047	0.491***	0.047
Months	0.0001**	0.000	0.0001**	0.000	0.0001**	0.000
R-square	0.074		0.087		0.097	
N = 1,066						

Notes: [a,b,c,d] Estimated in separate models. Partial effects for socioeconomic disadvantage are estimated but are not shown. Between-individual effects are included in the models but are not shown. Comparison categories appear in parentheses. Intercepts for the fixed effects portion of the model are estimated but are not shown. p.*<.05, **<.01, ***<.001.