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An Interdependent Look at Perceptions of Spousal Drinking Problems and Marital Outcomes

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Abstract

Research indicates a bidirectional association between heavy alcohol use and marital quality among couples. The current research extends previous research on the role of interpersonal perception by examining how partner drinking and perceiving one's partner's drinking as problematic are associated with subsequent marital outcomes. Moreover, we evaluated how perceiving one's partner to have a drinking problem was associated with marital functioning, and whether that association differed based on the partner's actual drinking. Married couples (N = 123dyads) with at least one spouse who consumed alcohol regularly completed measures of alcohol use and consequences, the perception that their spouse's drinking was problematic, and marital adjustment (i.e., relationship satisfaction, commitment, and trust). Results from actor-partner interdependence models using structural equations modeling indicated that for husbands, partner heavy drinking was associated with lower adjustment. Additionally, for husbands, perceiving their spouse had a drinking problem was associated with lower adjustment for both themselves and their wives. Moreover, significant interactions between partner drinking and the perception of partner drinking problem on marital adjustment emerged, controlling for amount of consumption. Specifically, perceiving one's partner's drinking as a problem was only negatively associated with relationship adjustment if the partner reported higher levels of heavy drinking. This pattern was stronger for husbands. Results illustrate the importance of interpersonal perception, gender differences, and the use of dyadic data to model the complex dynamic between spouses with regard to alcohol use and how it affects relationship outcomes.

Keywords

alcohol; satisfaction; trust; commitment; interpersonal perception; marriage; drinking problems

For those in relationships, one partner's heavy drinking can develop into a couple-level issue. Previous work on dating and married couples has shown that perceptions of problem drinking in one's partner exert a consistent unique influence on relationship outcomes beyond the partner's actual self-reported drinking (Rodriguez, Øverup, & Neighbors, 2013)

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and perceived partner drinking (Rodriguez, DiBello, & Neighbors, 2013). This research represents an extension of prior work in that it utilizes dyadic data from married couples to evaluate whether perceptions that one's partner's drinking is problematic interact with the partner's actual drinking to influence subsequent relationship outcomes.

Alcohol and the marital relationship

Spouses are among the first to identify and respond to problem drinking in their partners, and evidence supports a bidirectional relationship between problem drinking and relationship distress (Levitt & Cooper, 2010; Marshal, 2003; Rodriguez, Neighbors, & Knee, 2014). Studies using cross-sectional and longitudinal designs have primarily focused on alcohol-use disorder (AUD) diagnoses to demonstrate that spouses of individuals with AUDs report higher rates of physical and psychological distress as well as lower levels of marital satisfaction and more frequent reports of physical and emotional violence (Cronkite & Moos, 1984; Halford, Bouma, Kelly, & McD Young, 1999; Leonard & Jacob, 1988; Leonard & Senchak, 1993, 1996; Maisto, McKay, & O'Farrell, 1998; Moos, Finney, & Cronkite, 1990). Moreover, although the probability of getting married is the same as the general population, the probability of separation and divorce among couples where one person has an AUD is about four times higher (McCrady, 2012). Several studies have also identified discordance of drinking between partners as detrimental and a risk factor for separation and divorce (Homish & Leonard, 2007; Leonard, Smith, & Homish, 2014; Ostermann, Sloan, & Taylor, 2005; Torvik, Røysamb, Gustavson, Idstad, & Tambs, 2013; Wiersma & Fischer, 2014).

Less consideration has been applied to perceptions of partner's problem drinking on one's own relationship outcomes. This factor is important because perceiving that one's partner drinks problematically is at least somewhat subjective and uniquely predicts relationship outcomes beyond the partner's actual drinking behavior (Rodriguez, Øverup, et al., 2013). Although research has shown that partner heavy drinking is sometimes associated with poorer relationship outcomes, we believe this association should differ based on the extent to which the drinking is perceived to be a problem. Moreover, while much of the research examining alcohol use in marital relationships has focused on AUD diagnoses, we believe that partner drinking and perceptions may interact in couples across the continuum of alcohol consumption and consequences. In other words, a partner does not need to meet AUD criteria for his or her partner to believe the drinking is a problem (and for the drinking and perceptions to influence relationship functioning). Thus, the current research is interested in interpersonal processes in responses to a partner's drinking, which may or may not be heavy enough to meet AUD criteria.

Gender

Much of the existing research on alcohol use in marriage has focused on husband problem drinkers, partly because of unequal prevalence rates of problem drinking between men and women (Dawson, Grant, Chou, & Stinson, 2007; McCrady & Epstein, 1995; Nolen-Hoeksema, 2004; Nolen-Hoeksema & Hilt, 2006; Roberts & Linney, 2000) and partly because problem drinking has traditionally been conceptualized as a "male" problem (Haber

& Jacob, 1997). Thus, data utilizing husbands as partners of female problem drinkers are relatively rare and underreported in the research context (Howells & Orford, 2006). However, findings from existing research largely demonstrate detrimental consequences for husbands of problem drinking wives. Specifically, husbands with problem-drinking or alcohol-dependent wives report lower relationship satisfaction, poor partner support, verbal aggression, and physical violence (Blankfield & Maritz, 1990; Klee, Schmidt, & Ames, 1991; Leonard & Roberts, 1998; Miller, Downs, & Gondoli, 1989).

A few studies have compared couples with both problem-drinking husbands and wives. Haber and Jacob (1997) found that relative to all other combinations, couples with an alcoholic wife reported increased negativity and hostility. Further, Cranford, Floyd, Shulenberg, and Zucker (2011) found that over 9 years, the likelihood of divorce was highest in couples where the wife had an AUD but the husband did not. Additionally, although husbands' lifetime AUD was not predictive of wives' marital adjustment 9 years later, wives' lifetime AUD had direct negative associations with both their own and their husband's adjustment 9 years later. These results suggest that problematic marital outcomes in alcoholic couples may be driven more by the wives' than the husbands' problem drinking. Thus, previous work has shown that a partner's drinking is predictive of changes in relationship well-being. We also believe that the belief about whether the partner's drinking is problematic is an equally important piece of the puzzle.

Interpersonal perception

Interpersonal perception represents how partners perceive each other's thoughts, feelings, and behaviors. Research largely shows that these perceptions have important consequences for individuals, their interactions, and their relationship outcomes. Research has shown that perceptions matter more than reality in predicting relationship outcomes (Acitelli, Douvan, & Veroff, 1993; Fiske, Gilbert, & Lindzey, 2010; Murray, Holmes, & Griffin, 1996a). Work by Murray and colleagues (e.g., Murray & Holmes, 1997; Murray et al., 1996a) shows that idealized perceptions of partners' attributes are associated with better relationship functioning and a higher likelihood of staying together over time. In fact, these positive illusions showed positive, self-fulfilling effects (Murray, Holmes, & Griffin, 1996b). This work has generally examined how perception of partner traits (e.g., emotional, lazy, irrational) predict relationship outcomes beyond the partner's rating of their own traits. The current work represents an extension of these motivated construals by examining how perceptions about a partner's behavior (alcohol use) influence relationship quality beyond the actual behavior itself.

A small number of studies have examined dyadic perceptions in the domain of alcohol use, which focused on identifying the level of accuracy between drinker and spouse reports of alcohol consumption (e.g., Connors & Maisto, 2003). However, it is equally (if not more) important to direct research in examining whether the drinking is considered – by either partner – to be problematic. Individuals enter into relationships with preconceived notions and beliefs about alcohol use and about what types of drinking patterns are considered problematic. Moreover, perceptions of the quantity and frequency of alcohol use that cross the threshold from acceptable into problematic are relatively subjective and can vary greatly

from person to person. In other words, what one partner perceives as constituting an alcohol problem may or may not be echoed by the partner. Further, many times these expectations or perceptions are not discussed between partners. If spouses disagree on what quantity and frequency of consumption or related outcomes represent a drinking problem, but do not ever discuss it, one partner's drinking could very quickly become a source of resentment in the relationship without the drinker being aware of the problem. For example, consider Beth, who believes that ever drinking to intoxication is indicative of a problem, and Adam, who believes that periodically drinking to intoxication is acceptable and not indicative of a problem. If Adam drinks to intoxication about once per month, although that is not considered a problem to Adam, Adam's drinking may develop into a serious problem for Adam and Beth. We are interested in exploring these patterns of perceptions and partner drinking and the way they affect relationship adjustment.

Rodriguez, Øverup, et al. (2013) examined the extent to which one's partner's drinking was perceived to be a problem among college students in relationships. Results showed that this perception was associated with lower levels of relationship satisfaction among men with partners who reported relatively low levels of alcohol use. Rodriguez, DiBello, et al. (2013) examined perceptions of drinking problems and relationship outcomes in college students. Results showed that believing one's partner's drinking was problematic was associated with poorer relationship functioning, and this association remained significant after controlling for perceived partner drinking and consequences, own self-reported drinking and consequences, and the perception that they themselves had a drinking problem. These results underscore the importance of perceptions in understanding what constitutes problematic drinking and how these perceptions affect relationship satisfaction, trust, and commitment.

Current research

This research investigates couples' drinking patterns in the context of the extent to which alcohol has negatively affected the relationship. Examining perceptions of drinking problems and the way it interacts with actual partner drinking in predicting adjustment offers unique and promising avenues for both research and clinical practice. The current study evaluates the possibility of a stronger negative association between the belief that a spouse's drinking is a problem and marital adjustment when the spouse is reporting heavier drinking and more alcohol-related consequences. We will also evaluate whether these effects are different for husbands and wives. Results are expected to emerge independently from the partner's self-reported alcohol consumption (i.e., drinks per week). This research represents an extension of initial research showing that associations between perceptions and satisfaction differ by the partner's drinking (Rodriguez, Øverup, et al., 2013) by incorporating a validated perceptions measure and by focusing on how these processes occur in married couples. Furthermore, this research represents an extension of other research examining associations between perception of partner drinking problems and relationship functioning (Rodriguez, DiBello, et al., 2013) by incorporating partner data – an essential step in understanding these dyadic processes - and by examining these processes among a sample of married couples.

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It is currently unclear whether males experience the same or higher levels of distress as females in response to perceiving one's partner's drinking as problematic, as well as how the partner's actual heavy drinking might influence that association. This is partly because previous literature comparing how alcohol affects relationships has placed a focus on the presence of AUD diagnoses and partly because the research has focused primarily on women as partners of heavy drinking men. Thus, it is difficult to make predictions about specific gender effects with regard to how perceptions of partner problematic drinking will interact with partner-reported drinking in predicting relationship outcomes. It is, however, an important question that has received limited empirical attention.

Based on previous research, our hypotheses were as follows: Partner drinking will be negatively associated with subsequent marital quality (i.e., satisfaction, trust, and commitment; H1). Additionally, perceiving one's partner to have a drinking problem, controlling for drinking, will be negatively associated with subsequent marital quality (H2). Importantly, we expect that the perception that a partner's drinking is a problem will be more detrimental for the relationship to the extent that the partner reports heavier drinking and more alcohol-related consequences (H3). Finally, although not a formal hypothesis, we will examine whether these processes occur differently for men and women.

Method

Participants and procedure

Inclusion criteria for participation included that the couple be heterosexual and married. At least one member of the dyad was an undergraduate student, and at least one member of the dyad must have reported consuming alcohol one or more times per week. The same person did not need to fulfill both requirements. Both spouses were between 18 and 50 years of age.

Recruitment was conducted on a large and diverse urban university campus. Individuals and their spouses were invited to participate via flyers and various department listserv emails. Participants determined whether they met the inclusion criteria and contacted the researcher via email to indicate their interest in participating in the study. The researcher confirmed that the participants met the inclusion criteria and sent links to complete the web-based survey. Before beginning the survey, participants electronically signed the consent form acknowledging their consent to participate in the study. Follow-up assessments (identical to baseline) were collected every 3 months for 6 months, yielding a baseline and two follow-up assessments. Couples were compensated \$15 in gift cards (and extra credit if desired) for each assessment. Data for the present analyses comes from alcohol use and perception measures at baseline and marital adjustment outcomes measured 3 months later. All research procedures were approved by the institutional review board.

Participants were, on average, 29.76 years old (SD = 6.14 years). The majority (69.6%) classified themselves as Caucasian, with 9.2% African American, 7.7% Asian, 7.3% Other, 5.0% Multi-ethnic, 0.8% Native American/American Indian, and 0.4% Native Hawaiian/ Pacific Islander. About a quarter of the sample (26.5%) identified as Hispanic/Latino. Couples had been married, on average, for 4.26 years (SD = 5.08 years), with a range of 1

month to 27.08 years. Almost all spouses (93.3% of husbands; 90.2% of wives) reported meeting the drinking inclusion criteria.

The baseline assessment was completed by 133 dyads (N = 266). Three validity check questions were placed intermittently in the survey to assess whether participants were paying attention (e.g., "Please select 'strongly disagree' for this question"). Couples where one or both partners answered two or more check questions incorrectly were removed from the analyses. A total of 10 couples were dropped; thus, the final dataset was comprised of 123 couples (N = 246). Of the individuals who completed baseline, 200 (81%; 104 women, 96 men) completed the 3-month follow-up.

Measures

Alcohol use and problems—Alcohol problems were operationalized using four measures: AUDIT scores, negative alcohol-related consequences, number of drinks during the heaviest recent drinking occasion, and frequency of intoxication. Alcohol consumption (measured by drinks per week) was included as a covariate.

AUDIT: Consumption and consequences were measured with the Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993). The AUDIT consists of 10 questions regarding typical drinking behavior. The AUDIT has been used widely as a screening tool for hazardous drinking and has demonstrated well-established and sound psychometric properties (Reinert & Allen, 2002, 2007).

Negative alcohol-related consequences: Negative alcohol-related consequences were assessed with the Rutgers Alcohol Problems Index (RAPI; White & Labouvie, 1989). The RAPI assesses how often participants have experienced 23 alcohol-related consequences over the past 3 months. Two items were added related to drinking and driving. Responses were scored on a 5-point Likert-type scale (0 = never; 1 = 1 to 2 times; 2 = 3 to 5 times; 3 = 6 to 10 times; 4 = more than 10 times). Scores were calculated by summing the items ($\alpha_{wife} = .86$, $\alpha_{husband} = .95$). The RAPI has been shown to be a valid measure of alcohol-related problems (e.g., White & Labouvie, 1989).

Peak drinks: The number of drinks during the heaviest recent drinking occasion in the past month was assessed by an item from the Quantity-Frequency-Peak Alcohol Use Index (QF; Baer, 1993). The item utilized for this research addresses the occasion where respondents drank the most during the previous month, which was scored in terms of number of standard drinks (e.g., 12-oz. beer, 5-oz. wine). Peak drinking response options ranged from 0 to 25+ drinks.

Frequency of intoxication: Frequency of intoxication referred to how many times participants believed they were intoxicated during the past year and was assessed on an 11-point scale that ranged from 0 to 10 (0 = Never, 1 = About once a year, 2 = 2-3 times per year, 3 = About once every two months, 4 = Once a month, 5 = 2 times a month, 6 = 3 times a month, 7 = Once or twice a week, 8 = 3 + times a week, 9 = Every day, 10 = More than

once per day). The frequency of drinking 5+/4+ drinks on an occasion (for men and women, respectively) was also assessed using the same 11-point scale. As done by Homish and Leonard (2007), frequency of intoxication was rescored to reflect the number of days per year participants reported being intoxicated or having consumed 5+/4+ drinks (for men/women, respectively) in one occasion. The two variables were very highly correlated ($r_{husband} = .87$ and $r_{wife} = .80$).

Alcohol consumption (covariate): Drinks per week were measured with the Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985). The DDQ asks participants to fill in the average number of drinks they consumed and the time period of consumption for each day of the week over the previous 3 months. Drinking across the 7 days of the week is summed and the final number represents the average number of drinks per week consumed.

Perceptions of partner drinking problem—Perceptions of partner drinking problem were assessed with the Thinking about your Partner's Drinking scale (TPD; Rodriguez, DiBello, et al., 2013). This 26-item measure assesses the extent to which spouses believe that their partner has a drinking problem. Participants were asked to respond on a 7-point Likert-type scale ($1 = Not \ at \ all$, $7 = Very \ much$). Sample items included, "My partner's drinking is a source of strain in our relationship", "My partner has a lack of control over his or her drinking", and "I feel less intimate with my partner because of his or her drinking" ($\alpha_{wife} = .98$, $\alpha_{husband} = .97$).

Marital quality—Marital adjustment was measured by two indices of relationship satisfaction (i.e., Dyadic Adjustment Scale, Quality of Marriage Index), trust, and commitment.

Marital satisfaction: Marital satisfaction was measured with the Dyadic Adjustment Scale (DAS; Spanier, 1976) and the Quality of Marriage Index (QMI; Norton, 1983). The DAS is a 32-item measure of overall marital adjustment and satisfaction. Scores on the DAS range from 0–151; the commonly accepted cut-off for relationship distress is a total score of less than 100 (Marshal, 2003). Reliability for the DAS was acceptable ($\alpha_{wife} = .80$, $\alpha_{husband} = .$ 83). The QMI is a 6-item scale that asks spouses to report the extent to which they agree or disagree with general statements about their marriage. Five items (e.g., "We have a good marriage", "My relationship with my partner makes me happy") ask spouses to respond according to a Likert-type scale from 1 (*Very strong disagreement*) to 7 (*Very strong agreement*), and one item (i.e., "Indicate the point which best describes the degree of happiness, everything considered, in your marriage") asks spouses to respond according to a 10-point scale (1 = *Very unhappy*, 10 = *Perfectly happy*), yielding summed scores from 6–45 ($\alpha_{wife} = .98$, $\alpha_{husband} = .97$).

Trust: Trust was measured using the Trust Scale (Rempel & Holmes, 1986). This 18-item measure is designed to gauge levels of trust in one's relationship partner. Each item is answered based on a 7-point Likert-type scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). Sample items include, "My partner has proven to be trustworthy and I am willing to let him/her engage in activities which other partners find too threatening", and "Even when I don't know how my partner will react, I feel comfortable telling him/her

anything about myself, even those things of which I am ashamed." An overall trust score was calculated by taking a mean of all items ($\alpha_{wife} = .84$, $\alpha_{husband} = .88$).

<u>Commitment</u> The commitment subscale of the Investment Model Scale (Rusbult, Martz, & Agnew, 1998) was used to measure marital commitment. The subscale is comprised of 7 items where participants indicate their agreement on a 0 (*Do not agree at all*) to 8 (*Agree completely*) scale. Example items include, "I want our relationship to last for a very long time" and "I am committed to maintaining my relationship with my partner". The average of the 7 items was taken to construct the commitment score ($\alpha_{wife} = .96$, $\alpha_{husband} = .95$).

Analytic strategy

The analysis strategy followed the standard practices for Actor-Partner Interdependence Models (APIM). APIM provides a framework to examine outcome interdependence as a function of both an individual's own behavior (i.e., actor effect) and the partner's behavior (i.e., partner effect; Kenny, Kashy, & Cook, 2006). Specifically, APIMs can be used to test how individual and partner characteristics influence each of the outcomes, as well as a moderating effect between actor and partner variables (in this case, partner drinking and actor perceptions). Actor and partner effects are estimated simultaneously; thus, actor effects are estimated controlling for partner effects, and partner effects are estimated controlling for actor effects. Following standard practice, preliminary analyses evaluated nonindependence (Kenny et al., 2006), tests of distinguishability to determine whether analyses should be run separately for husbands and wives, and measurement models for the marital adjustment latent variable. These preliminary analyses were followed by tests of main effects models evaluating actor and partner effects of drinking and perception on marital quality, followed by primary analyses evaluating interactions between partner drinking and actor perception on marital quality. In APIMs, the source of outcome variable is always the actor (or self). All predictor variables were grand-mean centered to facilitate interpretation of the interactions. Alcohol consumption (i.e., drinks per week) and length of marriage were included as covariates.

Structural equations modeling (SEM) was used to create latent variables for marital adjustment outcomes. Satisfaction, commitment, and trust were used as indicators. Measurement and structural models were estimated using AMOS 22.0 with full information maximum likelihood (FIML). The FIML procedure estimates model parameters directly from the available data using an iterative expectation-maximization algorithm (Acock, 2005). The FIML procedure results in unbiased parameter estimates and appropriate standard errors when data are missing at random. FIML estimates are generally superior to those obtained with list-wise deletion or other methods, even when the missing at random assumption is not fully met (Acock, 2005).

Results

Preliminary Analyses

Nonindependence—Intraclass correlations (ICCs) were examined for all study variables. As expected, nonindependence was present on all marital adjustment indicators (ICCs

ranged from .19 to .54, all *p* values < .05). Significant nonindependence also emerged for three of the four drinking variables (ICCs ranged .169 to .265). Results showed nonsignificant ICCs for the number of drinks during a peak occasion and the perception of spouse drinking problem.

Tests of distinguishability—Results from the tests of distinguishability indicated that across all models, constraining effects for husbands and wives to be equal resulted in a significantly worse fitting model (all p values < .001). Thus, spouses were treated as empirically distinguishable with separate estimates given for husbands and wives.

Measurement model for marital adjustment—Separate but correlated latent variables were fit for husbands and wives, with errors also correlated between spouses. The hypothesized measurement model for marital adjustment with standardized factor loadings is presented in Fig. 1. Overall, the data fit the model well, $\chi^2(15) = 19.08$, p = .210;

 $\frac{x^2}{dt}$ = 1.272, TLI = .977, CFI = .991, RMSEA = .047 (90% CI [.000–.103]). Husband and wife latent adjustment scores were significantly correlated (r = .631, p < .001).

Descriptive statistics and gender differences—Descriptive statistics are presented separately for husbands and wives in Table 1. Overall, 17.1% of husbands and 14.6% of wives met AUDIT heavy drinking criteria (AUDIT scores of 8+ for males, 7+ for females). Tests of differences in mean levels of all variables were conducted to examine gender differences. Husbands reported higher levels of all drinking variables (all *p* values < .05). Wives reported greater perceptions that their spouse's drinking was problematic (p = .002). There were no significant differences in indices of marital adjustment.

Correlations—Zero-order correlations are also presented separately for husbands and wives in Table 1. Because we were interested in associations with both actor and partner variables, the table is structured to show correlations between husband/wife drinking and husband/wife adjustment, with TPD on both columns and rows. These correlations suggested significant associations between perceiving one's partner's drinking as problematic and all indicators of the partner's actual self-reported drinking for both husbands and wives. Thus, partner drinking was associated with the perception that the partner's drinking was problematic. Further, perceiving one's partner to have a drinking problem was significantly negatively associated with trust and marginally associated with satisfaction for both husbands and wives. The associations between perceptions of partner drinking problem and commitment were not significant for husbands or wives. Thus, it appears that a partner's heavy drinking influences both trust in the partner and satisfaction with the relationship, but perhaps not commitment to staying in the marriage.

Actor-Partner Interdependence Models – Main Effects

Preliminary APIM models first examined actor and partner effects of drinking and perceptions on marital quality (Hypotheses 1 and 2). These main actor and partner effects of drinking and perceptions on marital adjustment are presented in Table 2, and come from models where only main effects were included. Drinking and perception variables were

simultaneously included in the models to represent the unique associations with marital quality.

Hypothesis 1 was that partner drinking would be negatively associated with marital quality. Results from the main effects showed that in three of four models, the wife's heavy drinking was uniquely and negatively associated with lower husband adjustment. In one of the four models, husband drinking (peak drinks) was negatively associated with marital quality for wives. Hypothesis 2 was that perceptions of one's partner's drinking as problematic would be negatively associated with marital adjustment. In other words, individuals who believed their partner's drinking was problematic were expected to report lower levels of marital adjustment. Main actor effects of perceptions supported this notion for husbands in all four models, but not for wives in any of the models. Because actor and partner effects were included for both heavy drinking and perceptions controlling for consumption, these results suggest that the wife's heavy drinking and husband's perception exert independent influence on the husband's lower marital adjustment. Interestingly, a partner effect of perceptions also emerged for wives, such that controlling for wife drinking, husband perception that wife drinking was problematic uniquely predicted lower wife adjustment in all four models. Thus, couples with husbands who perceived that their wife's drinking was problematic displayed poorer adjustment in both husbands and wives.

Actor-Partner Interdependence Models – Moderation

The primary hypothesis (H3) was tested by evaluating the interaction between actor perceptions that their partner's drinking was problematic and partner drinking in predicting marital quality. Models were conducted for each of the four drinking variables with results presented in Table 2. Results showed significant interactions between actor perceptions and partner drinking for husbands in three of the four models and for wives in two of the four models. Tests of simple slopes examined the association between the perception that the partner's drinking is problematic and marital adjustment at high (+1 *SD*) and low (-1 *SD*) levels of partner drinking. Results for the significant interactions for husband outcomes are graphically illustrated in Fig. 2–4 and for wife outcomes in Fig. 5–6. The figures demonstrate a consistent pattern for husbands. Specifically, when wives reported higher levels of heavy drinking, the husband's perception that her drinking was problematic – with all three drinking variables – was significantly negatively associated with his adjustment (all *p* values < .001). However, when wives reported lower levels of heavy drinking, perceiving that her drinking was problematic was not predictive of his adjustment.

We also evaluated simple slopes for the two interactions examining how the husband's drinking and the wife's perceptions about his drinking were associated with her marital adjustment. As can be seen in Fig. 5–6, the pattern was also consistent for wives. Results for the interaction with RAPI scores indicated that perceiving husbands' drinking to be a problem was only negatively associated with wives' adjustment when husbands reported more alcohol-related consequences. The interaction with AUDIT scores showed a similar pattern. However, neither simple slope was significantly different from zero.

In order to test whether the patterns of interaction differed for husbands and wives, model comparisons were run which compared model fit for models where husband and wife interaction terms were constrained to be equal with those where the terms were free to vary. Results suggested that the interaction between partner drinking and actor perceptions were different for husbands and wives in the models with AUDIT scores, $\chi^2(1) = 4.58$, p = .032, frequency of intoxication, $\chi^2(1) = 4.12$, p = .042, and peak drinks, $\chi^2(1) = 4.78$, p = .029. The interaction with gender was not significant in the model with RAPI scores, $\chi^2(1) = 1.59$, p = .208. The direction of the significant difference suggests that the interaction is stronger for men than women.

Discussion

The present paper extends previous work examining the influence of heavy drinking as well as interpersonal perception regarding a partner's heavy drinking on the marital relationship. Overall, results were consistent with previous work and our hypotheses in showing that perceptions were uniquely associated with marital well-being. Perceiving one's spouse's drinking as problematic was associated with lower levels of marital functioning, and this occurred after controlling for how much the partner actually reported drinking (and alcohol-related consequences).

Actor and partner effects of heavy drinking on adjustment showed that higher levels of wives' AUDIT scores, intoxication frequency, and peak drinks were associated with lower adjustment for husbands. In contrast, husbands' heavy drinking was not significantly associated with marital quality for wives. Actor and partner effects of perception showed that perceiving one's partner's drinking as problematic was associated with poorer marital quality for husbands, but not for wives. Moreover, husbands' belief that their spouse's drinking was problematic was also associated with lower adjustment among wives.

Interaction results revealed that perceiving one's partner's drinking as problematic was particularly detrimental when the partner drank more and reported more alcohol consequences. This occurred for husbands in three of the four models and for wives in two of the four models. The primary differences between husbands and wives surrounded the outcome for which the pattern was evident. Specifically, it was primarily measures of wives' consumption that moderated the association between perceptions of partner drinking problem and marital adjustment. For wives, it was primarily measures of husbands' consequences that moderated the association between perceptions of partner drinking problem and their own adjustment. Frequency of intoxication and peak drinks are both measures of consumption, whereas RAPI is a measure of alcohol-related consequences (e.g., throwing up, missing work due to drinking). AUDIT is a measure that includes both items related to consumption and problems.

Taken together, results suggest that wives' problematic drinking appears to be extremely taxing on the relationship for husbands, whereas husbands' drinking was less consistently related to wives' relationship outcomes. The pattern of results is consistent with work showing that couples with heavy drinking wives show poorer well-being than all other combinations of couples (e.g., Cranford et al., 2011; Haber & Jacob, 1997). It is also

consistent with gender differences in cultural norms regarding drinking, with heavier drinking generally being viewed as less acceptable for women than for men (White & Huselid, 1997; Wilsnack, 1996). To the extent that societal norms influence attributions of acceptable behavior in the relationship context, this may in part account for why husbands were more disturbed by wives' heavy drinking than vice versa. Future research examining the influence of gender-specific perceived norms (Lewis & Neighbors, 2004; Suls & Green, 2003) in the marital context would be useful in considering this possibility. More specifically, it might be interesting to assess whether husbands feel greater embarrassment or shame in response to wives' intoxication than wives feel in response to husbands' intoxication.

Overall, results reinforce the notion that marital processes are co-constructed by both partners, that partners exert mutual influence on one another, and that relationship quality is a shared experience for both the partners (Kane et al., 2007). Results illuminate the importance of understanding differences in processes between husbands and wives. Traditionally, research examining discrepancies has reported no consistent tendency for the drinker to over-report or under-report alcohol consumption, using the spouse report as the standard (e.g., Connors & Maisto, 2003). However, several different factors play a role in this tendency, such as both partners' attitudes toward drinking and both partners' marital adjustment. Future research should examine potential moderators in this relationship to determine how drinker and spouse attitudes toward drinking affect drinking reports. For example, relationship functioning has been found to be the poorest (and likelihood of divorce the highest) in relationships with discordant alcohol consumption (Leonard et al., 2014). It is possible that those with more positive attitudes toward drinking (or who report higher levels of drinking) may underestimate the amount they (and their partner) drink if they think it has the potential to be problematic.

This work should also be interpreted in light of the broader interpersonal perception literature. Spouses in more satisfied marriages see their partners in a benevolently biased light that helps buffer against a reality in which partners sometimes falter (Murray, Holmes, Dolderman, & Griffin, 2000). In this case, focusing on perceptions of drinking problems provides an additional facet beyond the more general typically measured partner attributes (e.g., attractiveness, intelligence, generosity). Our results are consistent with previous work showing that perceptions are more strongly associated with relationship functioning than is reality (in this case, measured by the partner's actual self-reported drinking). Extrapolating findings from Murray et al. (2000), it is also possible that those who view their partner more favorably are motivated to perceive their partner's drinking in a less detrimental way. Future research comparing perceived partner drinking problem with the partner's self-perceived drinking problem may provide insight into this question. In both cases, we should consider potential biases in both one's own motivated perception of oneself and one's partner's motivated perception of their partner.

The current research is not without limitations. While the sample was not exclusively a college sample, at least one spouse from each couple was a college student. Moreover, because the sample was primarily a college-aged sample – where heavy drinking might be considered developmentally more normative – the rates of heavy drinking and AUDIT

scores may be inflated relative to older couples who are not in a clinical population. Relatedly, the current findings are also limited to marital relationships and it is not clear whether results would generalize to other kinds of relationships (e.g., dating, cohabiting, or homosexual relationships). Finally, all measures were limited to self-report, which may cause overlapping variance due to the common method used.

In conclusion, findings reiterate the importance of examining relationship processes from a dyadic perspective. While this has become more common in relationship research, it still remains relatively uncommon in alcohol research, even when the focus is on the effects of alcohol or treatment in relationship contexts. Findings also have important implications for understanding the difference between how much a person drinks and whether it is perceived as being a problem. While these are correlated, they are definitely not the same thing. Individuals may have implicit thoughts about how much is too much for themselves and/or their partner. Discrepancy in one individual's perceived evaluation of his or her spouse's drinking behaviors and associated strain is a particularly relevant topic in the domain of alcohol and relationships. Couples-based interventions and/or therapy might thus benefit from open discussions regarding potential discrepancies between partners in their views of what exactly represents problem drinking.

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Highlights

• Incorporates interpersonal perception, alcohol use, and marital adjustment.

- Perception of partner drinking problem predicted poorer functioning.
- Spouse drinking predicted poorer functioning if perceived to be a problem.
- This was particularly strong for husbands of heavy drinking wives.







Measurement model with standardized factor loadings for marital adjustment. H = Husband; W = Wife.

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Fig. 2.

Wife AUDIT scores and husband perception of wife's drinking problem (TPD) interact to predict husband marital adjustment. H = Husband; W = Wife.



Fig. 3.

Wife frequency of intoxication and husband perception of wife's drinking problem (TPD) interact to predict husband marital adjustment. H = Husband; W = Wife.



Fig. 4.

Wife number of drinks during heaviest recent drinking occasion (peak drinks) and husband perception of wife's drinking problem (TPD) interact to predict husband marital adjustment. H = Husband; W = Wife.



Fig. 5.

Husband AUDIT scores and wife perception of husband's drinking problem (TPD) interact to predict wife marital adjustment. H = Husband; W = Wife.



Fig. 6.

Husband RAPI scores and wife perception of husband's drinking problem (TPD) interact to predict wife marital adjustment. H = Husband; W = Wife.

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Descriptive Statistics and Correlations among All Major Study Variables

		Perce	ption				Drinking	Measures					
		UAT H	M TPD	H AUDIT	H Peak	H Intox. Freq.	H RAPI	W AUDIT	W Peak	W Intox. Freq.	W RAPI	W	as 🛛
Perception	H TPD	1	.05	.12	01	.11	.26**	.49	.30**	.35***	.54***	1.31	0.71
	W TPD	.05	1	.55***	.33***	.42***	.55***	.10	-00	.04	.12	1.75	1.34
Marital Adjustment	H DAS	11	14	04	15	.03	12	.04	.08	60.	.07	116.07	17.61
	н дмі	18^{\dagger}	12	05	06	.10	11	02	.03	.02	.03	40.61	6.54
	H Trust	32***	.10	.05	.03	80.	04	05	12	05	21*	5.87	.88
	H Commitment	-00	08	.03	07	.11	11	04	10	01	14	7.42	.95
	W DAS	10	16^{+}	04	06	04	10	06	01	.02	06	117.24	16.02
	W QMI	05	16^{+}	06	-00	.03	-09	.01	02	.04	.05	39.58	8.02
	W Trust	03	33***	13	16 [†]	08	20*	.01	.07	.06	.13	5.89	0.84
	W Commitment	.02	02	.10	.03	.07	60:	.10	.04	.03	.12	7.54	0.92
	Μ	1.31	1.75	5.72	6.38	25.60	3.87	4.13	4.46	11.98	2.74	ł	1
	SD	0.71	1.34	5.44	5.14	58.15	8.59	3.86	2.65	30.52	4.85	ł	1
* Note.													
p < .01; p < .01;													
*** p < .001;													

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H = Husband, W = Wife. TPD = Perception of partner drinking problem, DPW = Drinks per week.

Alcohol variables are presented on the horizontal axis and relationship variables are presented on the vertical axis.

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Actor-Partner Interdependence Models of Partner Drinking and Actor TPD Predicting Marital Adjustment

					F	leavy Drink	ing Indica	tor				
		AUDI	L	Frequen	cy of Ir	toxication	Р	eak Dri	nks	R	API Sco	lres
	q	SE	Z	q	SE	Z	q	SE	Z	q	SE	Z
Drinking												
Actor effects												
H drinking \rightarrow H adjustment	405	.37	-1.09	.052	.03	1.65^{\dagger}	031	.28	11	352	.19	-1.83^{\dagger}
W drinking \rightarrow W adjustment	.123	.42	.29	.001	.04	.02	-1.180	.53	-2.24*	.262	.30	.87
Partner effects												
W drinking \rightarrow H adjustment	858	.39	-2.19^{*}	201	.04	-4.71	-1.137	.49	-2.31*	400	.28	-1.42
H drinking \rightarrow W adjustment	196	.42	47	600.	.04	.23	.226	.31	.73	053	.21	26
Perceptions												
Actor effects												
H TPD \rightarrow H adjustment	-4.333	1.60	-2.71^{**}	-4.688	1.46	-3.22***	-5.586	1.60	-3.49***	-3.939	1.82	-2.16^{*}
W TPD \rightarrow W adjustment	-1.243	.95	-1.31	-1.403	.86	63	-1.635	.86	-1.90^{\ddagger}	-1.256	96.	-1.31
Partner effects												
W TPD \rightarrow H adjustment	.168	.84	.20	386	.71	54	542	.78	69	.494	.88	.56
H TPD \rightarrow W adjustment	-3.446	1.73	-1.99^{*}	-3.431	1.67	-2.05^{*}	-3.546	1.64	-2.16^{*}	-3.975	1.95	-2.04*
Interaction												
W drinking x H TPD \rightarrow H adj	819	.15	-5.64***	092	.02	-5.51***	-1.232	.36	-3.38***	.121	.16	44.
H drinking x W TPD \rightarrow W adj	172	.07	-2.44*	004	.01	56	118	60.	-1.39	185	90.	-3.34**
* Note.												
$* \\ p < .05;$												
$** \\ p < .01;$												

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H = Husband; W = Wife; TPD = Perception of partner drinking problem. These models control for baseline alcohol consumption (i.e., drinks per week) and length of marriage, but these covariates were not included for sake of parsimony. The main effects of drinking and perceptions come from a main-effects only model, whereas the interaction terms come from the full model.

p < .001.