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A dyadic investigation of perceptions of romantic partners' problematic alcohol use.

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#### **Abstract**

**Introduction:** Given romantic partners are often the first to identify their partners' alcohol-related problems, we sought to ascertain the perceptual processes that contribute to partner perceptions of an individual's alcohol-related problems and whether these processes systematically differ across gender.

**Method:** We assessed couples' (N = 168) perceptions of their own and their partners' alcohol-related problems. A dyadic multilevel model guided by the Truth and Bias Model of Judgement was conducted with gender as a moderator.

**Results:** Perceivers were accurate in their estimations of their partners' alcohol-related problems. However, men significantly underestimated their partners' alcohol-related problems. Perceivers showed greater accuracy in their perceptions of their partners' alcohol-related problems when they themselves reported more alcohol-related problems compared to when they reported fewer alcohol-related problems.

**Discussion and Conclusions:** Partners' biased perceptions may limit identification of at-risk individuals. Future research should investigate individual and couple-based consequences of accurate and biased perceptions of alcohol-related problems.

Keywords: Romantic Couples, Partner perceptions, Alcohol problems, Accuracy, Bias

## A dyadic investigation of perceptions of romantic partners' problematic alcohol use

Problematic alcohol consumption has been linked to several negative consequences for couples (e.g., conflict, poor relationship quality; Foran & O'Leary, 2008; Homish et al., 2006; Homish et al., 2009; Levitt & Cooper, 2010). Past research has examined an individual's perception of their own and their peers' alcohol consumption (e.g., Cox et al., 2019; McAlaney & McMahon, 2007). However, there is limited understanding of couples' perceptions of their romantic partners' alcohol-related problems (Rodriguez, DiBello, et al., 2013; Rodriguez & Neighbors, 2015; Rodriguez, Øverup, et al., 2013) and the various perceptual processes that contribute to judgements of alcohol-related problems in others (Reid et al., 2020), especially in the context of romantic relationships. As such, the present study aims to increase our understanding of the various facets that inform women's and men's perceptions of their partners' alcohol-related problems.

Romantic relationships may be a unique domain in which couples are vulnerable to perceptual biases that contribute to varying levels of accuracy in their judgements of their partner. Romantic partners are motivated to hold positive beliefs of one another's traits and assume they share similar qualities (Kenny & Acitelli, 2001); such beliefs have been associated with greater relationship quality (Barelds & Dijkstra, 2009, 2011; Fletcher, 2015; Murray & Holmes, 1997; Murray et al., 1996). In the context of alcohol-related problems, these beliefs may be beneficial for couples. Partners who perceive themselves and their partner to have concordant drinking behaviours or alcohol-related problems demonstrate better relationship functioning compared to partners with non-concordant perceptions (Homish et al., 2009; Leonard et al., 1983; Mudar et al., 2001; Rodriguez & Neighbors, 2015; Rodriguez et al., 2014). However, inaccurate estimations of a partner's alcohol-related problems can have negative consequences

for a couples' adjustment. For example, perceiving a partner's drinking to be a problem, even at low levels of partner-reported alcohol consumption, has been linked to couples' lower marital adjustment and quality (Rodriguez, DiBello, et al., 2013; Rodriguez & Neighbors, 2015; Rodriguez, Øverup, et al., 2013). Moreover, evidence suggests that perceptions are stronger predictors of well-being than partners' actual behavior (Kenny & Acitelli, 2001; Rodriguez, Øverup, et al., 2013; Tidwell et al., 2013). As such, even if individuals have less first-hand knowledge of their partners' drinking problems, their perceptions of these problems may still have important implications for couples' relationships.

Yet, research has focused on individuals' perceptions of the drinking behaviors of members of their social networks (Reid et al., 2020) and has infrequently examined whether these perceptions are accurate or biased. Using the Truth and Bias Model of Judgement, couples have been shown to simultaneously demonstrate accuracy (i.e., correspondence between perceiver's and partner's estimates of a target behaviour) and directional bias (i.e., how much a perceiver over- or under-estimates their partner's target behaviour), in their perceptions of partner traits and behaviours (Fletcher, 2015; Kenny & Acitelli, 2001). This model conceptually and statistically allows for perceivers to be both accurate and biased. Perceivers can utilize information that they have directly received from their partner, which contributes to their accuracy, while simultaneously relying on indirect information to inform their judgements (e.g., partner disclosure of alcohol problems vs. images of partner drinking), which may introduce bias (Stern & West, 2017). The limited information available has demonstrated that individuals exhibit both accuracy and bias in their perceptions of peers' substance use frequency (Cox et al., 2019; Henry et al., 2011; Mason et al., 2019) and drinking motives (Bartel et al., 2022). Only two studies have used the Truth and Bias Model of Judgement to concurrently account for

distinct perceptual processes in emerging adult friendships (Bartel et al., 2022; Reid et al., 2020). Since romantic partners are often the first to identify, experience the consequences of, and facilitate help-seeking for their partners' alcohol-related problems (Rodriguez, Øverup, et al., 2013), it is important to simultaneously ascertain each of the unique forces that contribute to partner perceptions of alcohol-related problems.

Few studies have examined whether women and men differ in their perceptions of alcohol-related behaviours and problems in their social network members. Some studies have found no significant associations between gender and the degree of biased perceptions of alcohol consumption in peers among student samples (McAlaney & McMahon, 2007; Reid et al., 2020). Other research in student samples has shown that women, compared to men, tend to overestimate their peers' drinking behaviours (Borsari & Carey, 2003; Carey et al., 2006; Henry et al., 2011). In romantic relationships, one study demonstrated that despite their partners reporting low alcohol consumption, men who still perceived their partner to have a drinking problem reported lower relationship satisfaction and commitment (Rodriguez, Øverup, et al., 2013). Women's reports of their male partners' alcohol problems were linked to greater dyadic conflict aboveand-beyond their male partners' self-reported alcohol problems (Farrelly et al., 2019). But no study to our knowledge has implemented the Truth and Bias Model of Judgement to examine gender differences in couples' estimations of their partners' alcohol-related problems. With the consequences to couples' relationships that are related to perceptions of partner drinking behaviours, establishing gender differences in accuracy and bias of partner perceptions of alcohol-related problems might inform the development of targeted interventions to align partner perceptions.

The present study examined whether romantic couples are accurate and/or biased in their perceptions of their partners' alcohol-related problems. Using the Truth and Bias Model of Judgement to guide our dyadic multilevel analyses, we extend past research (Cox et al., 2019; Mason et al., 2019; Rodriguez & Neighbors, 2015) by simultaneously estimating accuracy, directional bias, and assumed similarity in one model and by testing gender differences in these effects in a combined sample of mixed- and same-gender dyads. In accordance with the literature (Fletcher, 2015; Kenny & Acitelli, 2001; Reid et al., 2020), we hypothesized that romantic partners would be accurate in their perceptions of one anothers' alcohol-related problems. Whether they would also exhibit bias in their perceptions, and if these perceptual processes would differ between women and men, were assessed in an exploratory fashion due to the limited research in these areas.

#### Methods

### **Participants**

Couples were recruited from the community and from a Canadian university as part of a larger longitudinal study on substance use in romantic relationships, from which there have been several publications [masked for review]. While one previous study did assess couple members' perceptions of alcohol problems in their partner [masked for review], that study looked at whether partner perceptions contributed to escalations in dyadic conflict over time and did not examine the accuracy or sources of bias in partner perceptions. Eligibility criteria for the larger study required that: (1) couples be in a current romantic relationship; and (2) each partner drank at least 12 alcoholic beverages in the past year. Two-hundred-and-three couples were recruited in two cohorts, which were combined for the larger longitudinal study and the present study. Participants reported on their own alcohol-related problems only on weeks where they had

indicated consuming alcohol. Thus, only couples where both members completed the measures assessing their perceptions of their own and their partners' alcohol-related problems were included in the present study, resulting in a final sample of 168 (153 mixed- and 15 samegender) couples. Participant demographics are shown in Table 1.

#### Measures

# **Demographics**

An author-compiled questionnaire collected information about the participant's gender, race, age, and relationship characteristics including relationship status, relationship length, and living situation.

## Alcohol-Related Problems

Participants completed the Rutgers Alcohol Problem Index (RAPI), a 23-item measure assessing alcohol-related problems on a five-point Likert scale (White & Labouvie, 1989). We utilized a seven-day timeframe which has been validated and shown to be strongly correlated with the original three-year version of the RAPI (Farrelly et al., 2019; Lambe et al., 2015). In accordance with the recommendations of (Martens et al., 2007), items rated between one and four were re-scored to 1 (i.e., presence of a problem) and items rated as 0 remained as 0 (i.e., absence of a problem). All items were then summed for a final score with a possible range of 0-23 (Martens et al., 2007). To assess partner perceptions of alcohol-related problems, an informant-report version (Farrelly et al., 2019) of the seven-day RAPI was also administered. This measure assessed one's perceptions of the partner's alcohol-related problems in the past seven days and was scored using the same procedure described above. Both measures have shown strong reliability and validity in prior work (Farrelly et al., 2019; Lambe et al., 2015).

#### **Procedure**

Couples were recruited through online and community advertisements, as well as the university's psychology research pool. As part of the larger study, couples completed surveys over four consecutive weeks. All participants provided written informed consent before accessing the first survey. For the purposes of the present study, only the first time-point was utilized where participants in both cohorts completed in-person surveys within the laboratory<sup>1</sup>. Participants were debriefed and provided with financial or university course credit sa compensation. The study was approved by the university research ethics board.

# **Data Analysis**

Statistical analyses were conducted using the MIXED procedure in SPSS v26.0. In order to include both mixed- and same-gender couples, dyads were treated as indistinguishable. Since we could not use gender to distinguish the dyads, participant gender was included as a moderator. To examine our first objective as to whether couple members demonstrated accuracy and bias in their perceptions of their partners' alcohol-related problems, we conducted dyadic multilevel models guided by the Truth and Bias Model of Judgement (West & Kenny, 2011). All assumptions for multilevel models were tested. The data met all assumptions, except for 10 multivariate outliers from five couples which were identified using Mahalanobis Distance. The results presented do not include these couples, resulting in a final sample of 163 couples used in the analyses.

Using this statistical approach, we were able to test three aspects of perception in the same model: accuracy, directional bias, and assumed similarity/dissimilarity (Fletcher, 2015). We refer to the dyad member making the judgements as the "perceiver" and the member being

<sup>&</sup>lt;sup>1</sup> Following the completion of the first week, data collection was shifted to online surveys from home to increase recruitment and participant retention in cohort 2 but remained in-lab for cohort 1.

judged as the "partner". The partner's self-reported alcohol-related problems was considered the "truth" and was used as the benchmark rating against which perceptions were compared. To obtain the coefficient for truth, the partner's report of their own alcohol-related problems was grand mean centered across dyads. The slope of the model demonstrated whether partners were accurate in their perceptions. A significant and positive slope would illustrate that perceivers were accurate in their estimations of their partners' alcohol-related problems.

Directional bias reflected the mean differences of the perceivers' judgements of their partners' alcohol-related problems as compared to the benchmark rating (i.e., truth). The perceivers' judgments of their partners' alcohol-related problems (the outcome variable) were centered on the partners' actual reported alcohol-related problems by subtracting the grand mean of partners' alcohol-related problems (i.e., mean across dyads) from the perceivers' judgments of their partners' alcohol-related problems. This strategy of centering reflects that the intercept is the difference between the average of the partners' actual report of alcohol-related problems and the average of the perceivers' judgments of their partners' alcohol-related problems. Therefore, the average of this coefficient across perceivers tests whether perceivers' judgments differed from the partners' actual alcohol-related problems and indicates the direction of that bias. A significant and positive intercept would suggest that the perceivers' judgements of their partners' alcohol-related problems were higher than the partners' self-reported alcohol-related problems (i.e., overestimation), whereas a significant and negative intercept would reflect that the perceivers' perceptions of their partners' alcohol-related problems were lower than the partners' own self-reported alcohol-related problems (i.e., underestimation).

Assumed similarity/dissimilarity was defined as the extent to which the perceivers' judgements were influenced by their own alcohol-related problems (e.g., whether the perceiver

assumed that their partner shared similar [or dissimilar] levels of alcohol-related problems to themselves (Fletcher, 2015)). To assess assumed similarity/dissimilarity, the perceivers' own alcohol-related problems were grand mean centered across dyads. A positive coefficient would indicate that individuals project their own alcohol-related problems when making judgements of their partners' alcohol-related problems; a negative coefficient would indicate that individuals perceive their partners to have dissimilar levels of alcohol-related problems to themselves. In the model, directional bias, accuracy, and assumed similarity/dissimilarity were entered simultaneously as fixed effects.

Our second objective was to examine whether there were significant differences between women and men with regard to directional bias, accuracy, and assumed similarity/dissimilarity. Due to the predominance of mixed-gender couples, only the perceiever's gender was included as a moderator in the multilevel model to limit multicollinearity between perciever and partner gender. If significant main effects were detected, perceiver gender was dummy coded, and the model re-run to test the effects with women and men separately. Significant interactions were explored with simple slopes analyses (West et al., 1996)

#### **Results**

Table 2 presents the results for perceiver's accuracy and bias of perceptions of their partners' alcohol-related problems. Perceivers were accurate in their perceptions of their partners' alcohol-related problems as demonstrated by a significant and positively signed slope of the truth force (i.e., partners' actual alcohol-related problems scores significantly predicted perceivers' perceptions). However, perceivers also simultaneously underestimated their partners' alcohol-related problems, by approximately 0.3 points on the RAPI, as evidenced by a significant

and negatively-signed intercept. Perceivers also demonstrated significant assumed similarity, as shown by a significant and positively signed coefficient of the bias parameter.

When gender was included as a categorical moderator in the multilevel model, results remained consistent with regard to perceivers' accuracy, underestimation, and assumed similarity of their partners' alcohol-related problems. Additionally, a significant main effect of gender emerged, alongside an interaction between accuracy and assumed similarity. To test the main effect of gender, we dummy-coded the gender variable and ran two separate models to determine if one or both genders demonstrated the underestimation directional bias, accuracy, and/or assumed similarity. Women were first dummy-coded as 0 and men as 1. Upon entering the dummy coded variable for women into the model, the coefficient for the intercept was no longer significant (b = -.11, p = .34), suggesting that women do not significantly underestimate their partners' alcohol problems. Men were then dummy-coded as 0 and women as 1. When entering men's dummy-coded variable into the model, the intercept remained significant and negatively signed (b = -.55, p < .001), indicating that only men significantly underestimated their partners' alcohol-related problems by approximately 0.5 points on the RAPI.

To explore the significant interaction between accuracy and the perceiver's own alcohol-related problems, we conducted simple slope follow-up analyses, whereby one standard deviation was subtracted from or added to each centered assumed similarity score to identify high and low levels of alcohol-related problems in the perceiver, respectively. Results indicated that perceivers showed greater accuracy in their perceptions of their partners' alcohol-related problems when they themselves reported greater alcohol-related problems (b = .31, p < .001) versus when they reported fewer alcohol-related problems (b = .19, p = .001); nonetheless, both

perceivers with higher and those with lower levels of alcohol-related problems themselves showed significant accuracy in their perceptions of their partners' alcohol-related problems.

#### Discussion

This dyadic study examined the perceptual processes that contribute to partner perceptions of alcohol-related problems. Although most of the literature in this area has demonstrated that individuals tend to be accurate in their estimations of peer drinking behaviours (Cox et al., 2019; Henry et al., 2011; Mason et al., 2019; Reid et al., 2020), our findings extend this research to the romantic couples domain and to the context of alcohol-related problems. Moreover, unlike prior work, we utilized a novel statistical approach – the Truth and Bias Model of Judgement (West & Kenny, 2011) – which enabled us to examine the different facets of perception, including accuracy, directional bias, and assumed similarity, all in a single statistical model. We also explored these components in a sample of mixed- and same-gender couples to evaluate whether these processes differ between women and men, regardless of the gender of their partner. Overall, we found that couples were generally accurate in their estimations, but also tended to assume their partner shared similar levels of alcohol-related problems to themselves and men tended to underestimate their partners' alcohol-related problems. Finally, we detected a novel interaction between accuracy and the perceiver's own level of alcoholrelated problems. With past research demonstrating that individuals and couples can be simultaneously both accurate and biased in their perceptions of another's behavior or traits (Fletcher, 2015; Kenny & Acitelli, 2001), these results extend the literature to include couples' perceptions of alcohol-related problems.

Consistent with prior research (Reid et al., 2020), couples demonstrated systematic accuracy in their perceptions of their partners' alcohol-related problems. Couples have been

shown to accurately estimate objective drinking behaviours and associated consequences (Connors & Maisto, 2003). Many of the items within the measure used to assess perceptions of one's own and their partners' alcohol-related problems (i.e., the RAPI) focus on objective consequences of alcohol misuse (e.g., neglected responsibilities). With the frequency of contact and disclosure that occurs within romantic relationships, partners in our sample may have been able to readily detect the frequency of these objective indicators of alcohol-related problems. Individuals were also asked to ascertain the frequency by which their partner experienced more subjective and internally-experienced alcohol-related problems (e.g., physiological dependence). Relative difficulties in detecting nuances in these more subjective experiences may have contributed to couples simultaneously demonstrating perceptual accuracy and bias. Indeed, we found that couples tended to underestimate their partners' alcohol-related problems, overall.

When accounting for gender, we found that it was only men, and not women, who significantly underestimated their partner's level of alcohol-related problems. Research has shown that drinking with a partner was linked to women's greater relationship satisfaction and intimacy, but not men's (Homish & Leonard, 2007; Levitt & Cooper, 2010). As such, women may be more motivated than men to drink with their partners to achieve these relational benefits, thereby facilitating women's greater awareness of their partners' alcohol-related problems. This, in turn, could increase women's tendency to accurately estimate their partner's alcohol-related problems. Notably, the magnitude of underestimation demonstrated by men was relatively small (i.e., 0.5 points on average on the dichotomized RAPI, which represents a difference of less than one alcohol-related problem). Thus, it is important for future research to examine whether this underestimation bias in men is large enough to be associated with consequences.

Consistent with prior research, couples, regardless of their gender, tended to project their own alcohol-related problems onto how they perceived their partners' problems (i.e., assumed similarity). Couples are likely motivated to assume that they and their partner share similar levels of alcohol-related problems, considering the negative consequences associated with perceiving non-concordant drinking behaviours, such as lower relationship adjustment (e.g., Rodriguez & Neighbors, 2015). This finding may also be viewed through the lens of the dynamic perception model (Hughes et al., 2021), which posits that during an interaction, people's behaviour influences one another, and leads to the formation of perceptions that people are similar to each other because they have elicited similar behaviour. In other words, perception of another person's behaviour is based on behaviour that they themselves have elicited in that person. Regarding drinking problems, there may be a reciprocal interaction between couple members, where each partner indirectly influences one another's drinking behaviours and they subsequently perceive similarity in drinking-related problems. The findings from Bartel et al. (2022) mirror this understanding by demonstrating that perceptions of drinking motives within one's social network was linked to one's own motives.

We also found that those who reported more, rather than fewer, alcohol-related problems themselves were more accurate in their estimations of their partners' alcohol-related problems. In accordance with the partner influence hypothesis (Bartel et al., 2017; Mushquash et al., 2013; Muyingo et al., 2020), couples who create a drinking partnership (Leonard & Das Eiden, 1999) begin to engage in similar drinking behaviours and may experience co-occurring alcohol-related problems (Homish & Leonard, 2005). Concordance in these drinking behaviours and problems may facilitate greater accuracy in couples' perceptions by gaining information through frequent episodes of drinking together. Additionally, partners who perceive one another to share similar

alcohol-related problems may be more willing to share or display adverse consequences of drinking with one another.

Overall, this study has several strengths that have extended prior research on partner perceptions of alcohol-related problems (e.g., Leonard et al., 1983; Rodriguez, DiBello, et al., 2013; Rodriguez & Neighbors, 2015; Rodriguez et al., 2014; Rodriguez, Øverup, et al., 2013). Notably, our sample size was large and our study was dyadic in design—allowing us to examine the interpersonal processes involved in couple members' judgements of alcohol-related problems in their partners. Our use of the Truth and Bias Model of Judgement (West & Kenny, 2011) expanded the literature by exploring various facets of perception that may influence partner judgements, all in a single model, which is a more comprehensive approach than other statistical methodologies (Stern & West, 2017). Given that perceptions of others are seemingly more important influences on our behavior than others' actual behavior (Rodriguez, Øverup, et al., 2013), it is essential to identify the various perceptual influences that inform partner judgements.

There are also some important limitations in the study design and measures. First, the conceptual framework of the Truth and Bias Model of Judgement posits that one's self-reported alcohol problems represent the "truth". Individuals' perceptions of their own alcohol-related problems may be confounded by factors such as self-deception (Davis et al., 2010), lack of awareness of the links of experienced negative consequences to one's drinking behavior (Agostinelli et al., 2004; Coomber et al., 2017), or unwillingness to acknowledge one's alcohol-related problems to others. Unfortunately, such variables were not assessed in this study. Second, although we extended past research by including same-gender couples in our analyses, our sample size of such couples was small; future research should continue to be inclusive of a greater proportion of same-gender couples, in addition to other diversity considerations such as

race and socioeconomic status to expand the generalizability of our findings. Third, we did not specifically distinguish sex and gender in our measures. It is possible that some of the participants referred to their biological sex rather than their gender identity in their responses. Future research should assess these factors separately. Fourth, for purposes related to the larger study, we utilized a revised version of the RAPI, which asks participants to reflect on their alcohol-related problems in the last seven days, rather than the original three-year time-frame. Those who did not report consuming alcohol in the last seven days were not administered the RAPI. As such, this criterion may have excluded those who generally drink less frequently thereby limiting the generalizability of our findings to infrequent drinkers. Finally, the cross-sectional design of our study limits our ability to determine the direction of our effects. Future longitudinal research may clarify the temporal relationship between partner perceptions and the experience of alcohol-related problems in the individual.

## **Conclusions**

Taken together, this work represents an important methodological and theoretical advancement of the substance use perception literature by increasing our understanding of the nuances in romantic couples' perceptions of alcohol-related problems in one another.

Misperceptions may delay the identification and help-seeking of at-risk individuals, given that partners can be such an important support in assisting an individual with alcohol-related problems (Jarnecke & South, 2014; Velleman, 2006; Windle & Windle, 2019). As such, future research should examine both individual- and couple-based consequences (e.g., life and relationship satisfaction) of accuracy, directional bias, and assumed similarity of alcohol-related problems in one's romantic partner.

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## **Conflict of Interest Statement**

None of the authors have competing interests to declare.

#### References

- Agostinelli, G., Floyd, T. E., Grube, J. W., Woodall, G., & Miller, J. H. (2004). Alcohol problem recognition as a function of own and others' perceived drinking. *Addict Behav*, 29(1), 143-157. https://doi.org/https://doi.org/10.1016/S0306-4603(03)00078-9
- Barelds, D. P. H., & Dijkstra, P. (2009). Positive illusions about a partner's physical attractiveness and relationship quality. *Pers Relation*, *16*(2), 263-283. https://doi.org/https://doi.org/10.1111/j.1475-6811.2009.01222.x
- Barelds, D. P. H., & Dijkstra, P. (2011). Positive illusions about a partner's personality and relationship quality. *J Res Pers*, 45(1), 37-43.

  <a href="https://doi.org/https://doi.org/10.1016/j.jrp.2010.11.009">https://doi.org/https://doi.org/10.1016/j.jrp.2010.11.009</a>
- Bartel, S. J., Sherry, S. B., Molnar, D. S., Mushquash, A. R., Leonard, K. E., Flett, G. L., & Stewart, S. H. (2017). Do romantic partners influence each other's heavy episodic drinking? Support for the partner influence hypothesis in a three-year longitudinal study. *Addict Behav*, 69, 55-58. https://doi.org/10.1016/j.addbeh.2017.01.020
- Bartel, S. J., Sherry, S. B., Rodriguez, L. M., & Stewart, S. H. (2022). Accuracy and bias in perceptions of why social network members drink: A truth and bias approach to drinking motive (mis)perception. *Emerg Adulthood*.
- Borsari, B., & Carey, K. B. (2003). Descriptive and injunctive norms in college drinking: a meta-analytic integration. *J Stud Alcohol*, *64*(3), 331-341. https://doi.org/10.15288/jsa.2003.64.331
- Carey, K. B., Borsari, B., Carey, M. P., & Maisto, S. A. (2006). Patterns and importance of self-other differences in college drinking norms. *Psychol Addict Behav*, 20(4), 385-393. https://doi.org/10.1037/0893-164X.20.4.385

- Connors, G. J., & Maisto, S. A. (2003). Drinking reports from collateral individuals. *Addiction*, 98 21-29. https://doi.org/10.1046/j.1359-6357.2003.00585.x
- Coomber, K., Mayshak, R., Curtis, A., & Miller, P. G. (2017, Jun). Awareness and correlates of short-term and long-term consequences of alcohol use among Australian drinkers. *Aust N Z J 41*(3), 237-242. https://doi.org/10.1111/1753-6405.12634
- Cox, M. J., DiBello, A. M., Meisel, M. K., Ott, M. Q., Kenney, S. R., Clark, M. A., & Barnett, N. P. (2019, May). Do misperceptions of peer drinking influence personal drinking behavior? Results from a complete social network of first-year college students. *Psychol Addict Behav*, 33(3), 297-303. <a href="https://doi.org/10.1037/adb0000455">https://doi.org/10.1037/adb0000455</a>
- Davis, C. G., Thake, J., & Vilhena, N. (2010). Social desirability biases in self-reported alcohol consumption and harms. *Addict Behav*, *35*(4), 302-311.

  <a href="https://doi.org/https://doi.org/10.1016/j.addbeh.2009.11.001">https://doi.org/https://doi.org/10.1016/j.addbeh.2009.11.001</a>
- Farrelly, K. N., Sherry, S. B., Kehayes, I.-L., & Stewart, S. H. (2019). Female informant-reports of male romantic partners' alcohol problems predict escalations in dyadic conflict in heterosexual couples. *Addict Behav*, 92, 102-107. https://doi.org/https://doi.org/10.1016/j.addbeh.2018.12.034
- Fletcher, G. J. O. (2015). Accuracy and bias of judgments in romantic relationships. *Curr Dir Psychol Sci*, 24(4), 292-297. https://doi.org/10.1177/0963721415571664
- Foran, H. M., & O'Leary, K. D. (2008). Alcohol and intimate partner violence: A meta-analytic review. *Clin Psychol Rev*, 28(7), 1222-1234. https://doi.org/https://doi.org/10.1016/j.cpr.2008.05.001

- Henry, D. B., Kobus, K., & Schoeny, M. E. (2011). Accuracy and bias in adolescents' perceptions of friends' substance use. *Psychol Addict Behav*, 25(1), 80-89. <a href="https://doi.org/10.1037/a0021874">https://doi.org/10.1037/a0021874</a>
- Homish, G. G., & Leonard, K. E. (2005). Marital quality and congruent drinking. *J Stud Alcohol*, 66(4), 488-496. https://doi.org/10.15288/jsa.2005.66.488
- Homish, G. G., & Leonard, K. E. (2007). The drinking partnership and marital satisfaction: The longitudinal influence of discrepant drinking. *J Consult Clin Psychol*, 75(1), 43-51. https://doi.org/10.1037/0022-006X.75.1.43
- Homish, G. G., Leonard, K. E., & Kearns-Bodkin, J. N. (2006). Alcohol use, alcohol problems, and depressive symptomatology among newly married couples. *Drug Alcohol Depend*, 83(3), 185-192. <a href="https://doi.org/https://doi.org/10.1016/j.drugalcdep.2005.10.017">https://doi.org/https://doi.org/10.1016/j.drugalcdep.2005.10.017</a>
- Homish, G. G., Leonard, K. E., Kozlowski, L. T., & Cornelius, J. R. (2009). The longitudinal association between multiple substance use discrepancies and marital satisfaction.

  \*Addiction, 104(7), 1201-1209. <a href="https://doi.org/https://doi.org/10.1111/j.1360-0443.2009.02614.x">https://doi.org/https://doi.org/10.1111/j.1360-0443.2009.02614.x</a>
- Hughes, B. T., Flournoy, J. C., & Srivastava, S. (2021). Is perceived similarity more than assumed similarity? An interpersonal path to seeing similarity between self and others [doi:10.1037/pspp0000369]. *J Pers Soc Psychol*, 184-200. https://doi.org/10.1037/pspp0000369
- Jarnecke, A. M., & South, S. C. (2014). Genetic and environmental influences on alcohol use problems: Moderation by romantic partner support, but not family or friend support.

  \*Alcohol Clin Exp Res, 38(2), 367-375. https://doi.org/10.1111/acer.12263

- Kenny, D. A., & Acitelli, L. K. (2001, Mar). Accuracy and bias in the perception of the partner in a close relationship. *J Pers Soc Psychol*, 80(3), 439-448. <a href="https://doi.org/10.1037/0022-3514.80.3.439">https://doi.org/10.1037/0022-3514.80.3.439</a>
- Lambe, L., Mackinnon, S. P., & Stewart, S. H. (2015). Dyadic conflict, drinking to cope, and alcohol-related problems: A psychometric study and longitudinal actor-partner interdependence model. *J Fam Psychol*, 29(5), 697-707.
  <a href="https://doi.org/10.1037/fam0000098">https://doi.org/10.1037/fam0000098</a>
- Leonard, K., Dunn, N. J., & Jacob, T. (1983, 1983/01/01/). Drinking problems of alcoholics:

  Correspondence between self and spouse reports. *Addict Behav*, 8(4), 369-373.

  https://doi.org/https://doi.org/10.1016/0306-4603(83)90037-0
- Leonard, K. E., & Das Eiden, R. (1999). Husband's and wife's drinking: unilateral or bilateral influences among newlyweds in a general population sample. *J Stud Alcohol*(s13), 130-138. <a href="https://doi.org/10.15288/jsas.1999.s13.130">https://doi.org/10.15288/jsas.1999.s13.130</a>
- Levitt, A., & Cooper, M. L. (2010, Dec). Daily alcohol use and romantic relationship functioning: evidence of bidirectional, gender-, and context-specific effects. *Pers Soc Psychol Bull*, *36*(12), 1706-1722. <a href="https://doi.org/10.1177/0146167210388420">https://doi.org/10.1177/0146167210388420</a>
- Martens, M. P., Neighbors, C., Dams-O'Connor, K., Lee, C. M., & Larimer, M. E. (2007). The factor structure of a dichotomously scored Rutgers Alcohol Problem Index. *J Stud Alcohol Drugs*, 68(4), 597-606. <a href="https://doi.org/10.15288/jsad.2007.68.597">https://doi.org/10.15288/jsad.2007.68.597</a>
- Mason, M. J., Brown, A., & Moore, M. (2019). The accuracy of young adult cannabis users' perceptions of friends' cannabis and alcohol use. *Addict Behav*, 95, 28-34. <a href="https://doi.org/https://doi.org/10.1016/j.addbeh.2019.02.021">https://doi.org/https://doi.org/10.1016/j.addbeh.2019.02.021</a>

- McAlaney, J., & McMahon, J. (2007, May). Normative beliefs, misperceptions, and heavy episodic drinking in a british student sample. *J Stud Alcohol Drugs*, 68(3), 385-392. <a href="https://doi.org/10.15288/jsad.2007.68.385">https://doi.org/10.15288/jsad.2007.68.385</a>
- Mudar, P., Leonard, K. E., & Soltysinski, K. (2001). Discrepant substance use and marital functioning in newlywed couples. *J Consult Clin Psychol*, 69(1), 130-134. https://doi.org/10.1037/0022-006X.69.1.130
- Murray, S. L., & Holmes, J. G. (1997). A leap of faith? Positive illusions in romantic relationships. *Pers Soc Psychol Bull*, 23(6), 586-604. https://doi.org/10.1177/0146167297236003
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996). The benefits of positive illusions: Idealization and the construction of satisfaction in close relationships. *J Soc Pers Psychol*, 70(1), 79-98. https://doi.org/10.1037/0022-3514.70.1.79
- Mushquash, A. R., Stewart, S. H., Sherry, S. B., Mackinnon, S. P., Antony, M. M., & Sherry, D.
   L. (2013). Heavy episodic drinking among dating partners: A longitudinal actor–partner interdependence model. *Psychol Addict Behav*, 178-183.
   <a href="https://doi.org/10.1037/a0026653">https://doi.org/10.1037/a0026653</a>
- Muyingo, L., Smith, M. M., Sherry, S. B., McEachern, E., Leonard, K. E., & Stewart, S. H. (2020). Relationships on the rocks: A meta-analysis of romantic partner effects on alcohol use. *Psychol Addict Behav*, *34*(6), 629-640. <a href="https://doi.org/10.1037/adb0000578">https://doi.org/10.1037/adb0000578</a>
- Reid, A. E., Hancock, D. W., & Kadirvel, S. (2020). Are college students' perceptions of social network drinking accurate?: Examining the validity of the Important People Instrument.

  \*Psychol Addict Behav\*, 335-340. <a href="https://doi.org/10.1037/adb0000527">https://doi.org/10.1037/adb0000527</a>

- Rodriguez, L. M., DiBello, A. M., & Neighbors, C. (2013). Perceptions of partner drinking problems, regulation strategies and relationship outcomes. *Addict Behav*, *38*(12), 2949-2957. <a href="https://doi.org/10.1016/j.addbeh.2013.08.028">https://doi.org/10.1016/j.addbeh.2013.08.028</a>
- Rodriguez, L. M., & Neighbors, C. (2015). An interdependent look at perceptions of spousal drinking problems and marital outcomes. *Alcohol*, 49(6), 597-605. https://doi.org/https://doi.org/10.1016/j.alcohol.2015.05.002
- Rodriguez, L. M., Neighbors, C., & Knee, C. R. (2014). Problematic alcohol use and marital distress: An interdependence theory perspective. *Addict Res Theory*, 22(4), 294-312. https://doi.org/10.3109/16066359.2013.841890
- Rodriguez, L. M., Øverup, C. S., & Neighbors, C. (2013). Perceptions of partners' problematic alcohol use affect relationship outcomes beyond partner self-reported drinking: alcohol use in committed romantic relationships. *Psychol Addict Behav*, 27(3), 627-638. https://doi.org/10.1037/a0031737
- Stern, C., & West, T. V. (2017). Assessing accuracy in close relationships research: A truth and bias approach. *J Soc Pers Relat*, *35*(1), 89-111.

  <a href="https://doi.org/10.1177/0265407517712901">https://doi.org/10.1177/0265407517712901</a>
- Tidwell, N. D., Eastwick, P. W., & Finkel, E. J. (2013). Perceived, not actual, similarity predicts initial attraction in a live romantic context: Evidence from the speed-dating paradigm.

  \*Personal Relationships\*, 20, 199-215.
- Velleman, R. (2006). The importance of family members in helping problem drinkers achieve their chosen goal. *Addict Res Theory*, 14(1), 73-85. https://doi.org/10.1080/16066350500489311

- West, S. G., Aiken, L. S., & Krull, J. L. (1996). Experimental personality designs: analyzing categorical by continuous variable interactions. *J Pers*, 64(1), 1-48. https://doi.org/10.1111/j.1467-6494.1996.tb00813.x
- West, T. V., & Kenny, D. A. (2011). The truth and bias model of judgment. *Psychol Rev, 118*(2), 357-378. https://doi.org/10.1037/a0022936
- White, H. R., & Labouvie, E. W. (1989). Towards the assessment of adolescent problem drinking. *J Stud Alcohol*, 50(1), 30-37. https://doi.org/10.15288/jsa.1989.50.30
- Windle, M., & Windle, R. C. (2019). Partner conflict and support as moderators of alcohol use on alcohol problems and marital satisfaction in young ddult marital dyads. *Alcoholism*, *Clinical and Experimental Research*, 43(4), 668-678. <a href="https://doi.org/10.1111/acer.13977">https://doi.org/10.1111/acer.13977</a>

Table 1 Sample Characteristics (N = 168 couples; 336 individuals)

	Women $(n = 181)$	Men $(n = 155)$		
Age M (SD)	22.45 (5.22)	23.18 (5.72)		
Partner Gender, n (%)				
Man	167 (92.3%)	1 (0.6%)		
Woman	14 (7.7%)	154 (99.4%)		
Ethnicity/Culture, n (%) <sup>‡</sup>				
White	152 (85.3%)	137 (88.4%)		
Asian/South Asian	9 (5.1%)	9 (5.8%)		
Black	3 (1.7%)	3 (1.9%)		
Latino/Hispanic	3 (1.7%)			
First Nations	5 (2.8%)	1 (.65%)		
Multiracial*	6 (3.4%)	5 (3.2%)		
Education				
High school/GED	16 (8.8%)	23 (14.8%)		
College Diploma	8 (4.4%)	15 (9.7%)		
Some College/University	118 (65.2%)	78 (50.3%)		
University Degree	28 (15.5%)	31 (20.0%)		
Master's/Doctoral Degree	11 (6.1%)	8 (5.2%)		
Relationship type, n (%)				
Married/Common-Law/Engaged	14 (7.7%)	15 (9.7%)		
Living With/Dating	167 (92.3%)	140 (90.3%)		
Relationship Duration (years), $M(SD)^{\#}$	2.26 (2.16)			

<sup>‡</sup>Three women did not provide data on their ethnicity, resulting in a lower sample size (n = 178). \*Multiracial refers to individuals who endorsed two or more ethnicities, including White and Asian, East Indian and White, White and Lebanese, White and Indian, White and Black. #25 individuals had missing data for relationship length, so their partners' reported relationship length was used. For 10 couples, neither partner reported on relationship length. #Relationship duration was collapsed across both partners' reports.

Table 2  $\label{eq:mean-level} \textit{Mean-level accuracy and bias of perceiver's judgements of partners' alcohol-related problems (N = 163 couples)}$ 

	b	SE	t	95% CI	
				Lower	Upper
Model 1					
Intercept (Directional bias)	25**	.08	-3.33	40	10
Partners' Self-Report of Alcohol Problems (Accuracy)	.26***	.04	5.89	.17	.35
Perceivers' Alcohol Problems (Assumed Similarity bias)	.47***	.04	10.52	.38	.55
Model 2					
Intercept (Directional bias)	33***	.08	-4.18	49	17
Partners' Alcohol Problems (Accuracy)	.25***	.04	5.68	.17	.34
Perceivers' Alcohol Problems (Assumed Similarity bias)	.44***	.05	9.51	.35	.53
Gender	22*	.10	-2.15	41	02
Accuracy*Perceivers' Alcohol Problems (Assumed Similarity Bias)	.03*	.01	2.15	.00	.05
Accuracy*Gender	.06	.04	1.45	02	.14
Perceivers' Alcohol Problems (Assumed Similarity Bias)*Gender	05	.04	.28	13	.04

Note. \*p < .05, \*\*p < .01, \*\*\*p < .001. Women and men were coded as -1 and 1, respectively.