Mating Mind During Drinking: An Evolutionary Perspective

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ABSTRACT

Despite the fact that alcohol consumption has been strongly linked to negative health outcomes (Rehm, Gmel, Sempos, & Trevisan, 2003), alcohol consumption, including binge drinking, seems to be prevalent and socially acceptable (Guise and Gill, 2007). Although not the only explanation for drinking behaviors, the common practices of drinking, especially among college students, can be explained using an evolutionary perspective as it relates to mate selection. Male-to-male intense intrasexual competitions such as drinking game participation and bar fights can be explained in terms of sexual selection. In this paper, I also examine male risk taking behaviors and female mating courtship strategies under the influence of alcohol, explaining how drinking behaviors can be associated with certain reproductive outcomes. Testable novel hypotheses and predictions with regard to mating mindsets and behaviors during drinking are also introduced.

KEYWORDS

Drinking, Alcohol, Mating Mind, Reproductive Success, Bar Fights, Handicap Principle

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MATING MIND DURING DRINKING: AN EVOLUTIONARY PERSPECTIVE

The "drunken monkey hypothesis" developed by Dudley (2014) explains that our human ancestors might have gained an evolutionary benefit by learning to associate the smell and taste of ethanol with ripe fruits. About 10 million years ago, digestive alcohol dehydrogenase (ADH4) enzymes in our ancestors became capable of metabolizing ethanol, and this adaptation would have also increased in

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hominids' survival as they began moving on the ground and making the most out of rotting and fermented fruits (Carrigan, Uryasev, Frye, Eckman, Myers, Hurley & Benner, 2015). However, the brewing and drinking of alcohol is a modern invention and is evolutionary novel; alcohol consumption was believed to be accidental and haphazard for humans until some 10,000 years ago (Vallee, 1998). In modern times, the National Council on Alcoholism (2015) has listed alcohol as the most commonly used addictive substance in the U.S.; 17.6 million people or one in every 12 adults suffer from alcohol abuse or dependence. In this paper, modern day alcohol consumption among adults, especially college students, is discussed primarily from an evolutionary mating perspective.

The first aim of this paper is to explore whether the practice of alcohol consumption in human is associated with display of resources. Wealth display in males is linked to reproductive success (Kruger, 2008). As such, alcohol consumption could indicate the resource availability of a potential mate. The second aim is to explore how intrasexual competition emerges amongst men who engage in drinking behaviors in order to gain access to women; mating behaviors such as bar fights and different types of drinking game participation are discussed. The third aim is to describe male risk-taking behaviors in courtship associated with drinking. Based on the Zahavi's (1975) handicap principle, male alcohol tolerance via bingedrinking behavior is discussed as a costly, yet honest, signal of fitness and dominance. The fourth aim is to explore how men use alcohol as part of their mating strategy. For example, men may see intoxicated women as easier means to achieve sexual access (Goetz, Easton, Lewis, & Buss, 2012). Lastly, female courtship behaviors, signals, motivations, and hook-up behaviors associated with drinking are examined. A further section will be devoted to testable novel hypotheses and predictions with regard to mating psychology during drinking.

I. Alcohol as a sign of resources

Drinking alcohol is associated with a display of wealth because the rich, compared to the poor, has more resources to purchase alcoholic beverages. For example, in celebration on their 2011 Stanley Cup victory, six of the members from the Boston Bruins spent \$156,679.74 total on alcohol, including a \$100,000 bottle of champagne ("Their Stanley Cup Overfloweth", 2011). Statistics reported by the U.K. Health and Social Care Information Center (2014) showed that a larger number of working adults (65%) drank in the last week compared to unemployed adults (47%) who were not working but looking for a job. According to another survey the frequency of alcohol consumption also rises as income level increases; 81% of people who earned over \$75,000 reported drinking alcohol while only 46% of those who earned less than \$20,000 reported doing so (Gallup, 2010). A research study in Melbourne, Australia (Giskes, Turrell, Bentley & Kavanagh, 2011) reported that adults of higher socioeconomic status drank alcoholic beverages more frequently than those with lower socioeconomic status. Likewise in the U.S., lower socioeconomic status in both genders is related to the higher abstention of alcohol (Holder, 1998).

Several other factors related to wealth and status may also explain why alcohol consumption is more prevalent and frequent among the more affluent. For

instance, level of education may play the role in alcohol consumption. In the United Kingdom, individuals who scored high on educational test scores in childhood are at a significantly greater risk of daily alcohol consumption and drinking problems (Huerta & Borgonovi, 2010). Among adults aged 18 or older in America, the rate of alcohol consumption in past month has a positive relationship with the levels of education (Substance Abuse and Mental Health Services Administration, 2010). Similarly, Huerta and Borgonovi (2010) found that there was a positive correlation between educational level and daily drinking among British adults in their 30s. The earning rate projection by educational attainment statistics by U.S. Bureau of Labor Statistics (2014) reported that median weekly earnings increased as the individuals' level of education increased. Therefore, it seems likely that people with higher education and income consume more alcohol because alcohol is more affordable to wealthier people. Subsequently, alcohol consumption serves as a recognizable indicator of wealth.

Alcohol taxes in general tend to increase the total cost of alcohol, leading to a conspicuous consumption by the rich. Elder, Lawrence, Ferguson, Naimi, Brewer, Chattopadhyay, Toomey and Fielding (2010) reported that there was an inverse relationship between the price of alcohol and alcohol consumption; raising alcohol taxes effectively reduced alcohol consumption. Although increased alcohol tax could discourage the alcohol consumption in poor people to some extent, this would have less impact among the wealthier who could still afford it, and inadvertently then display their wealth by its consumption.

Display of wealth in males is linked to reproductive success (Kruger, 2008), and wealth display may be critical in human male mating strategies especially in the Western bars and parties where people buy and drink alcohol. A field interview study conducted at a bar reported that both men and women primarily agreed that men who buy drinks signal courtship behaviors, and a woman who accepts a drink from a man implies she wants to get to know him (Træen, Hovland & Ødegård, 1998). In such situations, drinking and buying alcohol could serve as signals of resources, and male-to-male competition as a mating effort would be commonplace.

II. Intrasexual Competition During Drinking

Intense intrasexual competition, especially between males, could be understood from the perspectives of Darwin's (1871) theory of sexual selection, which further divides into intrasexual competition and intersexual mate choice. In bars and clubs where potential sexual access to females is available, males may compete with each other intensely. For example, Marsh and Kibby (1992) reported that young men gathered and drank alcohol to show their masculinity and to compete for female attention. Men intensely compete with one another by participating in various drinking games, and men's higher level of sociosexuality and social competitiveness were positively related to their motivation and frequency of participation in drinking games (Hone, Carter, & McCullough, 2013). Cross-sectional findings show that men participate in drinking games more frequently than women do (Hone et al., 2013). Hone and McCullough (2015) also found that male participants, compared to female participants, increased their frequency of drinking game participation mostly because men were more motivated for competitive

reasons during drinking and in general because drinking games participation is sexually competitive.

The nature of sexual competition is also observed in different type of drinking games. LaBrie, Ehret and Hummer (2013) analyzed and categorized 100 types of drinking games into 5 groups: targeted and skill games, communal games, chance games, extreme consumption games, and even competition games. LaBrie et al. (2013) defined target and skill games as games in which a single person uses skill to either avoid drinking or target others to drink. (Note that in these games the alcohol is already purchased and displayed, and thus drinking less as a result of winning would not violate the wealth-display advantage described above). Communal games were defined as games where no winners or losers are decided. Chance games were defined as games that randomly decide the players to drink. Extreme consumption games were games in which players drink one or more standard drinks rapidly. Even competition games were defined as games in which individuals or teams compete against each other, making losers drink. Interestingly, males scored higher in all 4 types of drinking games, except in communal games, which was omitted from the analyses due to such low frequencies of participation. Communal games according to (LaBrie et al., 2013) are games that do not decide winners, so it is not surprising that communal games were less frequently played if drinking games are mostly played for competition.

The next question we may ask is whether intrasexual competition while drinking leads to mating success. The answer seems to be positive to a certain extent. For example, sexual consequences, ranging from kissing, sexual comments, and sexual touch, were reported to be significantly higher in male participants during or after playing drinking games (Johnson & Sheets, 2004). However, I would speculate that males who are frequently and heavily drunk might be perceived as mates with lower mate values because such males signal low levels of ambition, commitment, and investment towards potential relationships. Males who are competitive and risk-taking may indicate genetic superiority and look attractive to females.

As an extension of this competition hypothesis, a bar fight may also be an indication of intense intrasexual competition during drinking. Incidents in bars and clubs often occur between males or groups of males (Graham & Wells, 2003). All incidents reported by males in the study involved other males as their primary opponents while only two of the incidents, out of nine interviews with females, reported only female involvement. Most of the bar fight aggression also begins with young men challenging one another (Graham & Wells, 2001). In and around the bar, the majority of both victims and attackers are young men, aged 18 to 29 years old (Scott & Dedel, 2006).

III. Male Risk-Taking Behaviors Associated with Drinking

Alcohol consumption among males is also associated with risk-taking behaviors such as binge drinking, impulsivity, and sensation seeking (Cherpitel, 1993). Because men tend to invest more in mating efforts than do women, male participants generally take riskier moves, even during drinking. Hone et al. (2013) reported that male participants scored higher on fortitude display statements such

as "I like to play drinking games that show who can go the longest without passing out" and "I like to play drinking games that show who can last the longest without throwing up." A single binge drinking episode of up to 5 shots of vodka within 20 minutes can weaken the immune system immediately (Afshar, 2014) so risk taking behavior, such as binge drinking without passing out, might signal genetic quality in males. The handicap principle proposed by Zahavi (1975) suggests that females prefer males who display exaggerated behaviors that are costly to maintain and develop but serve as "honest" signals in males. Therefore, binge drinking and being able to "hold your liquor" without passing out might serve as a sign to potential females that the male binge drinker is of good genetic quality.

To my knowledge, only one study has tested the handicap principle, by measuring fluctuating asymmetry among drug users and non-drug users (Borkowska & Pawlowski, 2014). Bilateral symmetry in faces and other physical features appear attractive to viewers because a symmetrical face may indicate the high quality of health, development, and genetic diversity in resisting parasites (Fink and Penton-Voak, 2002). However, Borkowska and Pawlowski (2014) found no relationship between bodily symmetry and alcohol-drinking frequency and concluded that the drug use might not reflect genetic quality. However, the study had several limitations. In the study analysis, only drinking frequency, not the actual amount people consumed in each occasion, was considered. Neither did the study consider the environments in which the participants consumed alcohol. Secondly, Borkowska and Pawlowski (2014) explained that easy access to alcohol and a more stressful lifestyle in modern western society might cloud the relationship between genetic quality, measured by fluctuating asymmetry and alcohol use. In contrast to this study, Vincke (2016) found that women, who read about characters in different vignettes, with varying degree of behavioral frequency in drinking, perceived higher levels of attractiveness in those who drink, especially in short-term mating contexts. For these various reasons, future studies should test whether the riskier costly behaviors in social setting, such as binge drinking without passing out, indicate good genetic quality of the male to potential female partners.

Risk-taking behavior in men is also associated with female fertility; the presence of fertile female confederate in the room is associated with higher risk-taking behaviors in men (Miller & Maner, 2011). Recent studies such as Tan and Goldman (2015) reported that compared to those who smelled a non-fertile female's T-shirt, male participants who smelled a T-shirt worn by a fertile female consumed a significantly greater amount of alcohol and approached more toward female cues.

While alcohol consumption is related to risky sexual behaviors, consumption itself may be related to reproductive fitness to some degree. There tends to be less use of contraception under the influence of alcohol, which ultimately may enhance reproductive success. For example, the frequency of drinking in conjunction with alcohol use is positively associated with the frequency of having unprotected sex (O'Leary, Goodhart, Jemmott & Boccher-Lattimore, 1992). Likewise, Cooper (2002) reported that drinking was strongly associated with decreased protective behaviors among younger individuals. In a postal survey of 2,174 students, heavier drinkers were more likely to have unsafe sex (McEwan, McCallum, Bhopal and Madhok, 1992). In the same study, 19% of the respondents also did not take contraceptive precautions during sex because of drinking too much in the last year. In 1998, an

estimated 400,000 college students between 18 and 24 had unprotected sex after drinking (Hingson, Heeren, Zakocs, Kopstein, Wechsler, 2002). College students who reported to be drunk for the first time before age 13 were more than twice as likely to report having unprotected sex because of drinking (Hingson, Heeren Winter, & Wechsler, 2003). Although these studies often focus on social issues related to this behavior, from an evolutionary perspective it seems clear that alcohol consumption leads to increased chances of creating offspring.

Numerous experimental studies also administered alcohol to participants and assessed outcomes related to sexual risk taking. Such experiments have found increased intentions to have unprotected sex (MacDonald, Fong, Zanna, & Martineau, 2000; MacDonald, Zanna, & Fong, 1996; Maisto, Carey, Carey, Gordon, Schum, & Lynch, 2004), and decreased assertiveness of condom requests (Maisto, Carey, Carey, & Gordon, 2002; Maisto et al., 2004). It is even predicted that teens who drink heavily are 63 percent more likely to become teen mothers (Dee, 2001). Of course, describing how the lower use of contraception under the influence of alcohol may enhance reproductive success is not synonymous with the argument that it should be condoned by society (Geher, 2006). One thing to note is that the behavior is not argued as an adaptation per se. Rather it is valuable to understand the underlying evolutionary benefits and implications associated with this behavior.

IV. Males' Sexual Perception and Manipulation towards Intoxicated Females

Error Management Theory (Haselton & Buss, 2000; Haselton & Nettle, 2006) explains that in uncertain situations, natural selection has wired humans to minimize the overall cost of making errors, leading to biases in judgments of sexual interest in both men and women. Males may therefore overperceive women's sexual interests (Abbey, 1982; Farris, Treat, Viken, & McFall, 2008; Henningsen, Henningsen, & Valde, 2006). Under the influence of alcohol, men may especially over-perceive women's interest and are more sexually motivated because of drinking, which lessens sexual inhibition (Klassen & Wilsnack, 1986). Male participants who believed that their drinks contained alcohol showed greater subjective and objective sexual arousal as measured by penile tumescence towards erotic stimuli (Lansky & Wilson, 1981). Similarly, Abbey, Zawacki and McAuslan (2000) reported that alcohol consumption influenced both men's and women's sexual judgment; men translated women's higher levels of nonverbal cues, such as leaning forward and stretching one's arms, as less inhibited sexual cues. Similarly, Farris, Treat and Viken (2010) reported that increased alcohol consumption led to increased biases in perceiving that women's ambiguous cues signaled sexual interest, rather than friendliness. Men's tendency to over-perceive sexual interests, and females' less sexual inhibition under drinking (Klassen & Wilsnack, 1986) might be linked to males' persistent mating efforts and taking advantage of intoxicated females for sexual access.

Intoxication in women is positively correlated with sexual exploitability cues (Goetz et al., 2012). Women who were perceived as intoxicated were reported by the males to be significantly easier to seduce, pressure, deceive and sexually assault. Male bar drinkers in field studies suggested that women who dressed in a

sexually provocative manner or got drunk or were being alone or out late or having contact with many men in the bar were more likely to be perceived as sexually "easy" (Parks & Scheidt, 2000). Sexual manipulation in drinking game participation as a way to have sex with someone or get a date or to work up the courage to make a sexual move on someone was significantly higher in men than women (Johnson & Sheets, 2004). In the same study, participants, who played drinking games for sexual manipulation reasons, also reported having significantly higher sexual consequences during and after the game. Again, most females involved in male-to-female bar incidents involved invasive or persistent unwanted sexual or social overtures by men toward women (Graham, Wells, Bernards, & Dennison, 2010). Despite all these potential risks involved, drinking behavior is still very common among women.

V. Female Courtship Signals During Drinking

Alcohol consumption thus gives men a variety of advantages and opportunities to display their wealth and genetic quality to potential mates. The mystery still remains, however, about why women would be willing to engage in alcohol consumption, given that the women could also find different potential males with resources in places other than bars and parties. In other words, what are the possible courtship advantages that women get?

Three possible explanations exist in the literature to account for why drinking behavior is also common among women. As explained by "good genes" hypothesis, women pursuing short-term relationships prefer men who display risk-taking behaviors (Sylwester & Pawlowski, 2011). This is signaled by drinking and binge drinking, and by men who are extravagant or generous with resources such as numerous and/or expensive drinks (Gangestad & Simpson, 2000). Second, female risk-taking behavior, displayed by alcohol consumption, would imply an easier and less costly target to be approached by males (Sylwester & Pawlowski, 2011). Consequently, risk-taking females would get more attention and immediate resources from males. Third, in the long term mating context, females could successfully find potential long-term partners with high mate value. With less inhibited effects from alcohol consumptions, women might be more courageous in approaching higher quality mates they would not generally approach while sober. The limitation with this last hypothesis is that alcohol consumption could impair the perceived quality of the mate. The perception of a mate's attractiveness may be impaired under alcohol consumption. Females who drink alcohol are worse at judging opposite sex attractiveness; participants who did not drink alcohol were better at deciding whether a face was symmetrical or asymmetrical (Halsey, Huber, & Hardwick, 2012). All three hypotheses are further elaborated into specific testable statements in the last section of this paper.

These three possible explanations can be better appreciated by understanding underlying fundamental differences in mating interests between males and females. In humans, females are the choosier sex due to higher parental investment (Trivers, 1972), shorter reproductive lifespans and fewer numbers of potential offspring (Buss, 2003). For a review, see (Schmitt, 2014). When males are approached by a female stranger and invited to have sex, 75% of men said yes; 0%

of women agreed to a male stranger's invitation for sex (Clark & Hatfield, 1989). In general, females, more than males, appear to set the higher quality threshold for mates. In order for females to be successfully selective, there should be opportunities to select the mate in the first place. Bars, clubs, and parties, where alcohol consumption is common, seem to be "right" places where one could find ample observation opportunities.

Intoxicated women may be more receptive towards males' sexual approach. For instance, Lannutti & Camero (2007) showed that compared to non-drinking female participants in the experiment, those females who drank displayed a greater expectancy for immediate nonverbal behavior such as a man putting his arm around the woman. Most female participants, who reported to be heavy consumers of alcohol, also reported that drinking lessened sexual inhibition and helped them feel close to others (Klassen & Wilsnack, 1986). Female participants who consumed higher alcohol in a bar laboratory engaged in more open body position toward a male confederate (Kathleen, Amy, & Ronda, 2008). Alcohol consumption in women is reported to reduce intentions to resist sexual advances from someone they know while increasing intentions to pursue relationship-enhancing behaviors (Testa, VanZile-Tamsen, Livingston & Buddie, 2006). Female participants were asked about perceptions of sexual interests and desires in an interactive computer game that varied alcohol consumption. Those in drinking conditions were more likely than those in nondrinking conditions to have sex at the end of scenario (Leigh & Aramburu, 1996).

Testosterone might also play a role in woman's increased libido under alcohol influences. In some situations, alcohol drinking might mediate testosterone elevations; alcohol consumption was reported to be significantly associated with increased sexual interests and arousal in the post and intermenstrual phases of 97 Finnish women aged 18 to 35 years (Lindman, Koskelainen, & Eriksson, 1999). Another study showed that female participants' alcohol consumption in a laboratory setting significantly increased women's sexual relationship interest in a male confederate and was associated with lower ratings of partner sexual risk, which in turn predicted likeliness to engage in unprotected sex (Zawacki, 2011). Surveys completed by first-semester female college students revealed that alcohol use preceded 64% of hookups, and hookups were more likely to involve friends (47%) or acquaintances (23%) (Fielder & Carey, 2010). Among participants who also consumed alcohol before their last hookup, 30.7% of female participants reported that they would not have hooked up with their partners had the alcohol not been involved (Labrie, Hummer, Ghaidarov, Lac, & Kenney, 2014). From these numerous studies, it appears that alcohol consumption in women tends to result higher sexual consequences women would generally regret while sober.

Courtship motivation may also drive females to go to bars, where plenty of potential mates are accessible. Among females in a relationship who were unaccompanied by the partner at Austrian discotheques, estradiol levels correlated positively with skin display and clothing tightness (Grammer, Renninger, & Fischer, 2004). This could particularly be the case of attached women, presumably looking to find a short-term mate who is more evolutionarily fit than their long-term mate. Bars and parties, where drinks are easily available, serve as potential mating grounds for the females to access wealthy mates who might be sending honest signals of "good"

genes" via risky behaviors, binge drinking, competition games, and resources. Similarly, women would need to occasionally (though not as often as men) participate in drinking games in order to gauge their difficulty and determine how much value should be assigned to the winners. Such mating grounds may also be places for women to evaluate and access their own mate value by determining who they can attain as mates.

PREDICTIONS AND TESTABLE HYPOTHESES

Hypothesis 1:

Bars could be seen as mating ground where ample courtship opportunities between males and females are available. Accordingly, such places would be filled with intense intrasexual competition among males. Therefore, I predict that sex differences between wealth and status displays should be observed. In places like bars and clubs, the type and number of drinks men bought for women could signal wealth related cues. Females, more than males, should pay attention to the quality of alcohol purchased. In addition, men who buy certain types of costly drinks may be perceived by females as being wealthier than others. This could be tested by surveying both genders about their knowledge of drinks and drink prices, or by experimentally measuring how often women attend to the types of drinks purchased in a laboratory bar setting.

Hypothesis 2:

In a cross cultural analysis over 70 countries, Barber (2000) showed that lower male to female sex ratio can account for substantial variance in violent crime. The intensity of intrasexual competition among males should be dependent on male to female sex ratio, especially on the mating ground. Therefore bar fights and drinking game competitions would be more typical in situations where the number of males exceeds the number of females. With the effect of alcohol, the number of bar fights and participation in drinking games by males would be increased in situations in which the operational sex ratio is high. When the sex ratio is low, the number of intrasexual competition by males should be less intense and frequent. This could be observed in naturalistic bar settings or manipulated in computer simulated bar experiments.

Hypothesis 3:

Male risk taking behavior and being able to cope with excessive/binge drinking could be perceived as "honest" signal of mate quality; "honest" signals are perceived to be attractive by potential mates (Zahavi, 1975). Thus, a dominance hierarchy among males could be established by observing males who are able to drink the most and still maintain functioning. Males with successful binge drinking episodes, without passing out, would be perceived by both females and other males

as more dominant over males who show signs of inebriation and malfunctioning from drinking. They would be observed to attract and mate with more females.

Hypothesis 4:

Women absorb and metabolize alcohol differently than men (National Institute on Alcohol Abuse and Alcoholism, 1999). Women have fewer alcoholdegrading enzymes in the stomach than men (Baraona et al., 2001). Regardless of body weight, women generally have less body water than men, which explains why women reach higher blood alcohol concentrations after drinking equivalent amounts of alcohol (Frezza et al., 1990). Because males can generally ingest greater amount of alcohol than women, this difference could be classified as a type of behavioral sexual dimorphism. Sexually dimorphic traits (e.g., breast development, muscularity, etc.) are often perceived as attractant signals (Little, Jones, DeBruine, & Feinberg, 2008). Thus, the greater the amount of alcohol a man can consume, the more a female may view the man as exhibiting a masculine behavioral trait, and will be considered more attractive.

Hypothesis 5:

In both men and women, alcohol consumption affects the prefrontal cortex and reduces inhibition and impulse controls (Abernathy, Chandler, & Woodward, 2010). The depressant effects from alcohol could make men and women "braver" in approaching and attaining potential mates with higher mate values. We can easily test this by surveying (asking about previous behaviors or rating pictures) whether people approach potential mates who they believe are "out of their league" more frequently under the influence of alcohol. For both men and women, this would indicate that one advantage of alcohol consumption is that it allows them to honestly test their own mate values in a setting where the consequences of rejection are not as harsh as they might be in everyday life. A corollary to this hypothesis is that, due to the intoxicating effects of alcohol and the social dynamics of bars and parties, being rejected by a potential mate would have fewer negative effects — as measured by mood, physiological responses, and behavior — than it would be in everyday life.

Hypothesis 6:

Because intoxication in women is positively correlated with sexual exploitability cues (Goetz et al., 2012), men would be more likely to pay attention to intoxicated women for short-term mating interests. Men would be more likely to interpret interaction with intoxicated women as short term mating interests while women would be more likely to interpret attention from intoxicated males as genuine interests that could lead to potential long term dating partners. By engaging in drinking, women pursuing short-term partners could also benefit by receiving attention, securing immediate resources, and possibly gaining "good genes." These hypotheses can be tested by surveying men and women about their motives when they go to parties and bars and what the ideal result would be in regards to mating consequences.

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CONCLUSION

I have argued that the modern practices of alcohol consumption among men and women are linked to mating strategies and efforts. Alcohol might be used as a luxury, and alcohol consumption might signal "conspicuous consumption." In a college-drinking environment in particular, where intrasexual competition is endemic, bar fights, binge drinking and drinking game behaviors could be better understood by examining from an evolutionary mating perspective. Males who drink tend to take risky behaviors for sexual access to females while females who drink may signal sexual availability and open up more toward males' mating efforts, especially in the short-term mating context. Be receiving attention and immediate resources such as drinks from a potential partner, females can also assess their own mate values.

Understanding alcohol consumption from evolutionarily mating perspective – i.e., mapping out the primary motivations rather than just cataloging current behaviors – could be helpful tools in addressing the sociological problems associated with alcohol. The mating ground discussed in this paper particularly fits the college-drinking environment, though it could be extended to all types of drinking environments. I also do not suggest that mating mind is the only driving force that compels people to drink. However, I hope that the perspective applied in this paper could give us a deeper understanding of the mating mind during drinking, possibly creating effective intervention and educational programs regarding harmful drinking behaviors. I also hope that testable and novel hypotheses discussed in the paper would open the door for future research on these topics.

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