

## Discussion Paper

### Do we get by with a little help from our friends?

#### Social Drinking and Risk-Taking Behaviour

*The independent roles of social influence and alcohol consumption on risk-taking behaviour have been well researched within the psychological literature. However, the investigation of how all three of these variables interact is both diminutive and inconsistent. That is, there is no general consensus as to whether groups are beneficial or detrimental to alcohol-induced risk-taking. A review of the literature suggests that the relationship between these variables may not be straight-forward, and thus a multi-faceted approach with consideration of both individual differences and group characteristics may shed light on the complex relationship between social influence and alcohol-induced risk-taking. Subsequently, investigation could potentially identify effective strategies towards targeting sensible drinking in light of social contexts.*

Alcohol consumption is an important part of society and its use is widely accepted (and sometimes expected) across many cultures and age groups (Heath, 2000). Nevertheless, alcohol consumption is one of the top five risk factors for disease, disability and mortality globally and the cost of alcohol consumption to England alone is estimated to be £21 billion per year (Health & Social Care Information Centre, 2014). Alcohol consumption can also lead to social and behavioural concerns, particularly binge drinking (consumption of large amounts of alcohol episodically), which is most likely to be associated with risky behaviours and subsequent harm such as drink driving, violent behaviour and sexual behaviours (Corte & Summers,

2005). This type of drinking behaviour is generally associated with social contexts, as it is largely highlighted in groups of young adults in the night-time economy (Substance Abuse & Mental Health Services Administration, 2014). Although this highlights the importance of research investigating the link between social influence and alcohol-induced risk-taking, there has been diminutive experimental research investigating the role of both social influences and alcohol consumption in risk-taking behaviour. Much of the literature focuses separately on either alcohol and risk-taking behaviour or social influences on risk-taking behaviour, with few notable exceptions incorporating all three of these variables (e.g., Abrams et al., 2006; Hothrow, et al., 2014; Sayette et al., 2004; Sayette et al., 2012).

While the research literature surrounding the various amalgamations of these variables cannot ultimately offer a full holistic view of social influence on alcohol-induced risk-taking behaviour; it can however provide some insight into the mechanisms underpinning social influence. Further, reviewing the literature together may shed some light on the extent to which this influence and alcohol consumption collectively affect risk-taking behaviour, either positively or negatively. For example, much of the experimental research investigating alcohol and risk-taking behaviour is consistent in suggesting that alcohol consumption leads to an increase in risk-taking behaviour (Lane et al., 2004). In addition to this, social contexts - being with others and group size - have found to be associated with amplified levels of alcohol consumption (Cullum et al., 2012). Incorporating both of these research contributions, it would be reasonable to suggest that if social contexts increase alcohol consumption, this will result in an elevated increase in risk-taking behaviour. This explanation is in accordance with research findings by Lane et al. (2004),

suggesting that the relationship between alcohol and risk-taking is linear; risk-taking behaviour increases in line with heightened levels of alcohol consumption.

Contrary to the role of alcohol, research investigating social influence on general risk-taking behaviour suggests that groups are beneficial when making decisions affirming that 'two heads are better than one' (Charness & Sutter, 2012). This denotes that better decisions regarding risks are made within groups due to the variety of contributions enhancing the likelihood of identifying a more favourable decision (Kerr & Tindale, 2004). This therefore suggests that social contexts may not necessarily elevate risk-taking behaviours, and alternatively, social situations may reduce a risky decision. Nevertheless, it is important to take into consideration that many alcohol-related risky behaviours are not preceded by a group discussion of the behaviour. Conversely, a factor of risk-taking associated with alcohol consumption (Henges & Marczinski, 2012): impulsivity is characterised by making unplanned and rapid choices or reactions (Potenza & de Wit, 2010). Furthermore, it is suggested that the role of groups on alcohol consumption is detrimental, as group size has found to be positively correlated with alcohol consumption (Cullum et al., 2012). In light of these various findings regarding social influence on risk-taking or alcohol consumption, it is reasonable to suggest that it is important to investigate these three factors together to examine the complex relationship between social influences and alcohol-induced risk-taking.

When reviewing the experimental research literature which incorporates all three variables (social influence, alcohol and risk-taking), it appears that not only is it diminutive, but it is also inconsistent. That is, research findings suggest under the influence of alcohol, groups are more likely to make a risky decision compared to when sober and when these decisions are made individually (Sayette et al., 2012).

However, other research has found that groups risk taking is not affected (Abrams et al., 2006), or is even reduced (Hopthrow et al., 2014) when intoxicated. A review of this research may offer some insight as to why these inconsistencies appear within this area of research and elucidate the benefits/detriments of social influences on alcohol-induced risk-taking behaviour.

### ***Research investigating group influence on alcohol-induced risk-taking***

Experimental studies conducted by Sayette and colleagues (2004, 2012) suggest that risk-taking behaviour is increased in groups who have consumed alcohol. Sayette et al. (2004) separated unacquainted males into groups of three, with whom they consumed a placebo drink or a drink containing 0.82g/kg of alcohol. Following this, the groups were asked to make a collective decision to either complete 30 minutes of questionnaires, or to toss a coin (coin toss task) which would result in either a positive outcome (no questionnaires) or a negative outcome (60 minutes of questionnaires-completing). Findings indicated that the groups who consumed alcohol were significantly more likely to choose the coin toss (risky choice) (Sayette et al., 2004). However, such research does not consider how these risky decisions may differ between groups and individuals. An expansion of this study by Sayette et al. (2012) attempted to address this. Here, 720 (360 female) social drinkers were separated into groups of three, who consumed either a placebo, an alcoholic beverage (0.82g/kg for men, 0.74g/kg for women) or a control soft drink. Following beverage consumption (consistently done within groups) the coin toss task was carried out. To assess individuals, in every fourth group, the individual members were separated to complete the coin toss in isolation. Results found that groups took the more risky decision compared to individuals, only when they believed they had consumed alcohol (alcohol or placebo beverage). These results indicate that groups

do not influence risk-taking behaviour when group members are sober, thus suggesting that risk-taking behaviour is only impacted by intoxicated groups. Furthermore, when the risky choice was made in isolation, there were no differences in risk-taking between any of the beverage conditions. This finding highlights the importance of incorporating social context into alcohol research. An important factor to consider within this research study is that beverage consumption was always carried out within groups. As such, it could be argued that this is a measure of group decision making, rather than group influence on alcohol-induced risk-taking behaviour, as the beverage consumption was still within a social context.

Research findings have not been unanimous in this area, however, as other research suggests that alcohol-induced risk-taking is not affected (Abrams et al., 2006) or decreases in groups (Hopthrow, et al., 2014). For instance, Abrams et al. (2006) investigated the effects of context (groups of four unacquainted peers or individuals) and beverage consumption (alcohol or placebo) on risk-taking, utilising a risk assessment task. Their findings suggested that individuals found risky choices more attractive following alcohol consumption, whereas the groups risk assessment did not differ between the two beverage conditions. These results therefore suggest that social contexts/groups may compensate for the effects of alcohol on subsequent risk-taking. Furthermore, Hopthrow et al. (2014) proposed that groups may reduce risk-taking behaviour following alcohol consumption. In a naturalistic study, they recruited participants from a university campus or music event and found that intoxicated individuals were less likely to take risks when they were within a group, as opposed to when they were alone. Specifically, they found that individual choice was more risky when they had consumed alcohol, and individuals generally made more risky choices than groups. Further, groups who had consumed alcohol made

less risky decisions than groups who had not consumed alcohol. Interestingly, there was no context effect between the two environments, which could be due to both environments being characteristic of social drinking atmospheres. This therefore suggests that social contexts or drinking within a group may reduce risk-taking behaviour, and therefore groups may serve as a positive attribute in alcohol-induced risk-taking.

### ***Friends: help or hindrance?***

In light of the research investigating group influences on alcohol-induced risk-taking, there appears to be no clear answer on the impact of social contexts. The research incorporating all variables; social influence, alcohol consumption and risk-taking behaviour, is not merely diminutive but also inconsistent. It could be suggested that rather than searching for a straightforward relationship, the relationship which needs to be investigated is that which is multi-faceted. With this in mind, there are various possible factors that may contribute to risk-taking in social contexts following alcohol consumption, such as group characteristics, individual personality differences and affective mood.

In line with Tajfel and Turner's (1986) Social Identity Theory, an individual's behaviours and attitudes alter in order to correspond with their group's identity. Consequently, it is reasonable to suggest that the impact of groups on individual behaviour will be dependent on what the individuals believes is desired or undesired by the group. Therefore, the saliency of this social identity may offer an explanation of the varied group influence on risk-taking behaviour due to the dependence on the group characteristics. Additionally, the Alcohol Myopia Model (AMM; Steele & Josephs, 1990) posits that alcohol induces a myopic effect on attention, narrowing

the focus of an intoxicated individual to the most salient and easy to process cues. This, therefore, impedes full evaluation of behavioural consequences that could subsequently result in risky behaviours. This together with the saliency of social identity may suggest that when consuming alcohol, an individual's attention is narrowed towards the social context, such as the group they are with. Therefore, the consequence of subsequent behaviours will be evaluated in light of what the individual believes is desirable to the group, or would benefit the group. The role of the AMM in social contexts is supported by Hothrow et al. (2007) who found that groups who had consumed alcohol concentrated on the immediate benefits of the group. However, to date this does not appear to have been supported in light of whether individual attentional bias towards groups following alcohol consumption impacts on individual risk-taking behaviour.

In consideration of individual differences, AMM suggests that attention allocation will differ between individuals as although attention may be drawn to social cues due to the saliency of social identity; ultimately, what appears to be most salient will differ between individuals. That is, alcohol will not narrow everyone's attention towards a specific cue. Furthermore, AMM may also be affected by the individual's mood/emotion, as attention could be allocated to the feeling of a specific emotion, providing that it is the most salient cue at that moment (Steele & Josephs, 1990). Many individual differences such as impulsivity and mood have been found to influence alcohol consumption behaviour, including risk-taking behaviour (Fox et al., 2010). It is therefore reasonable to suggest that many of these factors may mediate or moderate the role of social influence on alcohol-induced risk-taking behaviour, which could give some insight in to the inconsistencies found within the research. Additionally, group decisions regarding risk may be influenced by individual

differences: if risk-taking is influenced by personality characteristics, these same characteristics may influence individuals to voice their ideas more or be more persuasive within the group (e.g. Oreg & Sverdlik, 2013). The risk-taking decisions made in the group conditions within the above research studies have all denoted a group measure of risk-taking, rather than individual measures within the group setting.

Many of the factors discussed could impact the social influence on alcohol-induced risk-taking behaviour, and therefore it is necessary to move beyond the conceptualisation that there is a straightforward relationship between these variables. Consequently, it is important to adopt a multi-faceted approach to investigate the topic, by incorporating group characteristics and individual differences. The research to date provides some great insight into this area of research and continuation of investigation into this field may uncover various factors involved in the complex process of group influence on alcohol-induced risk-taking. Subsequently, investigation could potentially identify effective strategies towards targeting sensible drinking in light of social contexts.

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