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Young adults' decision making surrounding heavy drinking: A multi-staged model of planned behaviour

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Abstract: This paper examines the real life contexts in which decisions surrounding heavy drinking are made by young adults (that is, on occasions when five or more alcoholic drinks are consumed within a few hours). It presents a conceptual model that views such decision making as a multi-faceted and multi-staged process. The mixed method study draws on purposive data gathered through direct observation of eight social networks consisting of 81 young adults aged between 18-25 years in Perth, Western Australia, including in-depth interviews with 31 participants. Qualitative and some basic quantitative data were gathered using participant observation and in-depth interviews undertaken over an eighteen month period. Participants explained their decision to engage in heavy drinking as based on a variety of factors. These elements relate to socio-cultural norms and expectancies that are best explained by the theory of planned behaviour. A framework is proposed that characterises heavy drinking as taking place in a multi-staged manner, with young adults having: 1. a generalised orientation to the value of heavy drinking shaped by wider influences and norms; 2. a short-term orientation shaped by situational factors that determines drinking intentions for specific events; and 3. an evaluative orientation shaped by moderating factors. The value of qualitative studies of decision making in real life contexts is advanced to complement the mostly quantitative research that dominates research on alcohol decision making.

Keywords: decision making; heavy drinking; binge drinking; young adults; planned behaviour; Australia; alcohol

Introduction

Decision making studies abound in the health research literature. According to Gladwin, the goal of decision studies should be to "model how people make real world decisions and to identify the specific decision criteria used by most individuals in a group in order that policymakers might intervene in the decision making process with new policies designed to make things better for the targeted group" (1989:86). However, studies of decision making have rarely investigated real life contexts. Instead they tend to employ data from questionnaires to build and test prediction models that are theoretical in nature.

A widely used model of decision making is the theory of reasoned action, which was formulated in the early 1970s (Ajzen & Fishbein, 1973, 1980; Fishbein & Ajzen, 1975). This theory suggests that the costs and benefits of behaviour are based on attitudes and social pressures to conform. These factors influence a person's *intention* to engage in a particular behaviour, with a person's intention to act being the best predictor of resulting behaviour. Schlegel et al. (1987) applied reasoned action theory in their study of self reported drinking

among adolescents and young people, while O'Callaghan et al. (1997) employed this theory in a study of self reported drinking by undergraduate students.

Reasoned action theory was extended by Ajzen (1988, 1991), who added perceived behavioural control – that is, the ability to control the circumstances that ensure desired outcomes – in what he called the theory of planned behaviour. Several studies have used this approach to understanding alcohol use (e.g., Kuther, 2002; Johnston & White, 2003; Norman & Connor, 2006; Huchting et al., 2008).

Although offering a wealth of interesting insights, the preoccupation with predictive models has led to a failure to present a viable 'real life' model of human behaviour that can explain how attitudes, social pressures and other elements contribute to drinking behaviour. The lack of real life context has led more ethnographic oriented researchers to call for the development of alternative frameworks that consider the socio-cultural contexts of decisions surrounding alcohol and drug use. For example, writing about illicit drug use, Rhodes (2002) suggests shifting the focus from individuals to the interactions between individuals and the social and structural contexts in which they operate, a call made more generally by Good (1994:39). In a recent paper on the normalisation of drug use, Measham and Shiner (2009) suggest placing decision making analysis within a framework of practice theory. It remains unclear, however, what relevance existing decision theories have to these contextualised approaches, with social researchers seemingly averse to incorporating ostensibly individualistic frameworks into their analyses.

Through a qualitative examination of the ways in which young adults make decisions during sessions of heavy drinking, supported by basic descriptive statistical analysis of drinking variability amongst the participants observed, a model will be proposed that shows how decisions take place in a multi-staged process. For the purposes of this paper, 'heavy drinking' refers to sessions where five or more alcoholic drinks are consumed within a few hours – a style of drinking often also referred to as 'binge drinking.' It will be argued that young adults' drinking practices accord best with the theory of planned behaviour, with heavy drinking being mostly intentional and influenced by attitudes (shaped mostly by socio-cultural norms), social pressures (what are referred by planned behaviour theorists as 'subjective norms') and perceived and actual control. Structural and cultural influences are shown to be crucial in the initial stage of the decision process, and calculative thinking, mediated by situational elements, shapes later stages. The value of mixed method studies of decision making in real life contexts to understand heavy drinking is advanced to complement the mostly survey based research carried out previously, and hence accords with Newman and Benz's (1998) call for a greater dialogue between qualitative and quantitative research.

Methodology

The research employed a mixed methods approach involving qualitative and some quantitative data gathering techniques (Tashakkori & Teddlie, 2003). The main data collection method was participant observation of drinking practices and related activities amongst young adults at pubs, clubs, music festivals and private parties mainly in Perth, Western Australia, with some additional reporting in Sydney, Melbourne, London and Edinburgh. This data was complemented by in-depth interviews with a subsample of 31 observed participants. The project had approval from Curtin University's Human Research Ethics Committee.

Participant observation began in October 2005 and was completed in March 2007. Data collection was conducted by a purposively selected team of eleven peer fieldworkers aged between 18-25 years (seven female and four male) who belonged in social networks with variable (although mostly high) drinking levels, as determined by a recruitment survey. As previous research had indicated that university students were amongst the most prevalent heavy drinkers (Roche & Watt, 1999), and because it was felt that university students (particularly those studying social sciences) would have the best aptitude for field research, all but one of the fieldworkers were university students.

On most occasions, fieldworkers worked in pairs, with one of the fieldworkers (designated the 'insider') being a member of the studied social network (that is, they were studying their own friends), while another fieldworker (designated the 'observer') was invited along to the event as a guest of the group. In addition to assisting the observer in reporting, the insider's role was to facilitate acceptance of the observer into the network and provide background information on participants and relevant issues. Later in the fieldwork phase, more experienced fieldworkers were allowed to work solo, thereby combining the insider and observer roles.

Given the labile nature of social groupings that participate in social outings, where different friends may participate in an outing on a given night and participants may sometimes bring along friends unknown to participants, the presence of the observer was not, in itself, deemed problematic. What was potentially problematic was the fact that participants were aware that the observer was there to make notes about their activities (all participants were informed and gave consent to being observed prior to each occasion). This was despite the best efforts of observers to remain as inconspicuous as possible and blend in with the social activities (although, for university policy reasons, they were not allowed to consume alcohol on the job). During post-study interviews with participants, it was reported that the presence of the observer did make some participants self-conscious at times, particularly at the beginning of the fieldwork phase. However they denied that they behaved any differently and, in most cases, generally got used to the presence of observers over time.

The reports focused on the social, cultural and spatial contexts of drinking practices and included details of consumption (e.g., type of drink and rates of drinking), the social networks involved (e.g., age, gender and social relationships), their activities (e.g., movements in and between venues and social interactions, including conflicts, conversations and mode of transport) and the settings (e.g., venue type, numbers of patrons and behaviour of venue staff). The fieldworkers kept a log of activities in a notepad during the event, and wrote up a detailed report afterwards. Fieldworkers also conducted pre-event surveys of participants that included information on their expectations of the event, how much they intended to drink and why. Post-event surveys (usually carried out the next day) included participants' estimates of how much they had drunk and how they had travelled home. Some fieldworkers also kept a journal in which they occasionally summarised events that were not formally reported.

Statistics on drinking levels were collated from the observational data. The non-random sampling used in the study, the low sample size and the few observations per participant (participants were on average observed over three occasions, with a bias towards heavy drinking events), means that no inferences should be made from the statistics to the wider population, nor even to the lives of the participants who were observed. Given that the focus of the study was to understand behavioural process rather than behavioural prevalence, the limited use of statistics was deemed sufficient for the purposes concerned.

Following the fieldwork phase, 31 in-depth interviews were conducted with a subsample of the observed participants and fieldwork insiders (several stakeholders were also interviewed, namely managers of licensed venues, policy makers, youth workers and other practitioners, but the results of these interviews are not reported here). Those approached to take part in these interviews were the participants who had been reported on most frequently in each of the eight groups. Basic demographic information (age, ethnicity, education level, employment and income level) was recorded for each participant. The interviews were carried out in the day-time at various venues (such as cafes), and in some cases by telephone and on Live Messenger. The interviews complemented the direct observation by focusing on past and current drinking patterns, decisions related to drinking and the social meanings constructed through drinking and related activities.

Altogether, 123 field reports were produced, covering the drinking of eight distinct social groups comprising 81 young adults. All but one participant was aged between 18-25 years (the other participant being 27 years old). The sample included a mix of males (56%) and females (44%), mostly from European ancestry. Although additional demographic statistics were not compiled for the observed participants, demographic statistics were compiled for the interviewed sub-sample ($n = 31$), which provides an indication of the characteristics of those observed. Most of those interviewed (80%) were of European ancestry, with the remainder being of Asian and mixed descent. Most interviewees (90%) were employed at the time of interview (including 58% employed full-time), although some of these had graduated from university during the course of research. The income levels of interviewees varied, with approximately one-third having an annual income of less than AU\$20,000 per year, half earned between AU\$21,000 - \$40,000, while 17% earned over AU\$40,000 per year.

The observation and interview data were analysed using grounded theory coding techniques (Strauss & Corbin, 1998), which are commonly used (albeit often implicitly) in ethnographic research (Northcote & Moore, 2010). The observation reports and interview transcripts were initially subject to open coding, which involved identifying key issues without any particular conceptual framework in mind. During this process the observation and interview data served to complement each other through an iterative comparison of the code classifications arising from the two sources. As it emerged that particular decision making factors (such as normative expectations and situational considerations) were a salient feature of the data, an explanatory model – the staged decision making model – was devised in order to conceptualise the relationship between factors. Selective coding of the data helped define the features of this model, and descriptive statistics were also utilised to offer some quantitative understanding of these aspects. Finally, theoretical coding of the data was carried out to further refine the model in light of existing decision making theories (e.g., the theory of planned behaviour).

Results

General influences/norms/constraints

A culturally normative conception of the value of heavy drinking in terms of having a good time was prevalent amongst participants. When describing their drinking activities, participants tended to invoke ideal conceptions of a ‘good night’ with friends. A good night refers to an evening defined as enjoyable, which might include spending time with friends, experiencing some form of excitement (e.g., being at a great club), meeting new friends, interacting with potential romantic partners and consuming alcohol. One participant put it the following way in an interview: “it’s part of the culture, sort of go out, have a few drinks.” Note that “a few drinks” in Australian

vernacular can include the consumption of very large quantities of alcohol. The scale of intoxication might range from 'feeling good' or being 'tipsy' (generally a female expression) to being 'wasted', 'smashed' or 'trashed,' which is often a component of what is termed the 'big night' (in contrast to a 'quiet night').

The mean rate of consumption per participant was 11.2 standard drinks (an Australian standard drink measure is 10 grams of alcohol). The highest consumption observed in a single event for a male was 39 standard measures of alcohol, with 13.7 measures being the mean for the 45 males observed. The highest consumption observed for a female was 19 standard measures, with 8.1 measures being the mean for the 36 females observed.

Heavy drinking for participants was not merely undertaken because it is culturally normalised and socially expected. Heavy drinking was seen to deliver certain benefits in terms of aiding socialisation, creating pleasurable and momentous evenings, and relaxing and 'letting go'. For participants, alcohol's ability to make the mundane seem more interesting is important in promoting a feeling of social bonding through having a good time with friends. One male participant interviewed put it simply: "I guess you are more readily entertained when you are drunk". A female participant put it in the following terms:

I guess sometimes you will have more fun, or you will think that you will have more fun, definitely – get into some more random situations than you would ... or talk to people that you wouldn't when you're sober.

The 'randomness' referred to in the above quotation describes the ways in which being intoxicated opens up possibilities for actions and interactions that are perceived to be unavailable when sober. Alcohol consumption was particularly valued as an aid to reaffirming social ties between friends. Sarah remarked: "I think as we get older and maybe don't see each other as much, sometimes when you come together it is more about the talking and the catching up kind of thing, and the drinking is more an accessory." In this sense, alcohol consumption is both culturally expected and ostensibly rational in terms of its value in maximising pleasure and promoting social bonds.

Situational opportunities and constraints on drinking intentions

The value placed on heavy drinking as a desirable means for having a good time did not mean that participants drank heavily on every occasion. Some statistical findings from the study are informative in this respect. The mean number of standard drinks consumed by participants who were reported on multiple occasions (with 45 participants observed on average five occasions each) was 10.7 drinks, and the mean of the average absolute deviation for these participants was 3.3 standard drinks, which indicates some intra-individual variability in drinking rates. By way of illustration, Sasha consumed 3-6 standard drinks on 6 occasions and 9-13 standard drinks on 8 occasions. Anthony consumed no drinks on 4 occasions, 1-5 standard drinks on 6 occasions, and 9-18 standard drinks on 4 occasions.

The variability within individual drinking levels suggest that generalised cultural norms about the value of heavy drinking are not sufficient predictors of resulting drinking levels on their own, and that drinking levels may be situationally specific to some extent. Some of this variability is explained by unpredictable factors that will be discussed shortly, but it is also evident that some of the variability is due to the shifting intentions of participants.

The decision to engage in heavy drinking was predominantly made prior to the event, with participants' intentions being a reasonable predictor of resulting drinking levels. There was a

moderate correlation ($N = 181$, $r = .5$, $p < .01$) between the intention to consume “quite a few” drinks on a particular occasion and consuming five or more standard drinks. This was only a crude measure, because participants were not asked to qualify how many drinks constituted “quite a few,” which undoubtedly varied from participant to participant (consequently, it is possible that the correlation would have been higher had a more refined measure been employed). It is also clear that drinking intentions were not constant. On average individual participants would adjust their intended level of drinking from their usual amount (which for most was “quite a few drinks”) on 37.5% of occasions. This does not include occasions when participants decided to forego going out altogether, which seemed to be at least partly tied to an intention not to drink.

Anthony noted the way situational factors (what he refers to as “personal factors”) influence his intentions to engage in heavy drinking:

[It depends on] if I am tired, the mood I am in, the day I have had, and my expectancies of the night... It also depends on what time of the week it is. Also depends on probably what time of night it is, because if later you want to go home. Also depends on account of the next day as well.

The intention to engage in heavy drinking seemed to be based on two main considerations: whether a good time was possible on a particular occasion; and whether heavy drinking was desirable as part of accomplishing a good time. As an example of the first consideration, participants had expectations about whether they were in for a good night based on factors such as personal mood, the venue they were going to (often rated in terms of its clientele and music); what friends might be present and also the significance of the occasion (e.g., someone’s birthday, end of exams, a festive holiday).

While several factors were outside their control, young adults undertook activities that increased the likelihood of having a good time and mitigated factors that undermined that objective. This included: pre-purchasing alcohol from retail outlets instead of venues in order to minimise expenses; consuming alcohol in large quantities early in the evening in order to get the evening off to a good start; picking a club where the atmosphere was expected to be good; inviting friends who infused the group with the required level of excitement and fun; consuming water to minimise the effect of hangovers; and arranging alternative transport to minimise the inconvenience of not being able to drive.

Intervention of situational moderators

Although drinking intentions seem to be important predictors, it is also true that at least some of the resultant drinking levels were unexpected, with participants’ drinking plans undergoing change in response to various moderating situational factors that emerged during the course of the event. As one participant said:

[It depends on] what we’re doing, where we’re going, who I’m with. ... Sometimes you’ll be sort of set for a big night and it’ll be not very good out so you’ll go ‘oh well, stay out an hour and I’ve had enough’.

One factor that modified the intended level of consumption was the behaviour of friends. When one or more participants were not engaging in a ‘big night’ or a ‘good night’, this had a flow-on effect, with others also deciding to limit their drinking as a result. One male fieldworker wrote in one account: “my girl is with me again but she is really tired and I don’t think she really wants to go out and dance, which is unusual for her, and I think her mood contributed to the others having a

bit of a boring night.” As one female participant interviewed said in relation to her friends: “if they’re not drinking, then obviously you don’t drink as much.”

This evaluative aspect of the decision making process became particularly clear in the field reports when intentions to drink heavily did not eventuate. At one event, Jay admonishes his friend Bruce for “abandoning” him the week before. Bruce responds that he “just wasn’t in the zone [for drinking and having a big night]” and therefore took the decision to leave early. Another fieldworker noted a similar response from one of his participants on a particular night out:

11:00 - I have a chat to Simon and ask him why he isn’t drinking at the moment. And he said, “It’s just not the right night.” He thought it would be really good and it is okay, there are quite a few friends here but there has to be a certain chemistry for him to start getting drunk.

While situational factors on the night (such as a half empty club, poor music choice by the DJ, tensions among friends or changing mood) can contribute to a lacklustre evening, the reverse situation can also happen, where an original intention not to drink heavily is revised as the factors for a ‘big night’ unexpectedly fall into place. One of the fieldworkers reported in her journal about one particular evening in which the free availability of alcohol and good company led her to drink heavily despite her original intention not to:

I didn’t go out with much money and wasn’t planning to drink much or stay long. But when I got there my friend Alicia – whose 21st [birthday] it was – bought me a drink and kept buying me drinks, as did her parents and a guy who was there that I used to swim with and hadn’t seen in ages. Alicia’s parents had booked her a room at the Hotel Grand Chancellor on Wellington St and a group of us walked back there. The fridge was full of beer and champagne. I’m not sure what time it was but my phone rang and Simon was waiting for me outside (I’d messaged him and told him where I was). I stumbled out. I was very drunk. I don’t remember much. Simon drove me home and apparently I passed out on the kitchen floor, then Simon had to hold me up while I spewed in the toilet. He left me sleeping on the couch.

In this case, some of the elements necessary for a ‘good time’ with friends emerged unexpectedly, and her plans changed accordingly, shifting from a quiet night to a big one. Young adults are often prepared to adjust their objectives when a “certain chemistry” comes together. When interviewed, Anthony offered the following reflection:

[A]ll these factors... you can’t really nail down one factor, because every time you go out it will change. And then the importance of each factor will change when you go out. It is like they’re dynamic pretty much.

This process of ongoing assessment meant that participants might deviate from their original intentions if the opportunity for maximising their enjoyment from heavy drinking unexpectedly presented itself.

Discussion

The findings indicate that planned behaviour theory best accounts for young adults' decision making surrounding heavy drinking. Heavy drinking is primarily the outcome of an *intention* to drink heavily. This intention is influenced by descriptive and injunctive norms regarding the acceptability of heavy drinking (Borsari & Carey, 2003) and culturally normative attitudes regarding the desirability of having a good time. Attitudes regarding the desirability of heavy drinking on *particular* occasions are also important, which tend to be based on a form of calculated hedonism (Szmigin et al., 2008) that takes into account changing personal circumstances and objectives. Perceived and actual behavioural control (or lack thereof) are also relevant, with participants attentive to changing conditions that are required for achieving a good time and minimising negative consequences (e.g., physical and psychological wellbeing, transportation and availability of friends). It is these factors that account for variability in intentions to drink heavily and explain why plans sometimes change during the course of events.

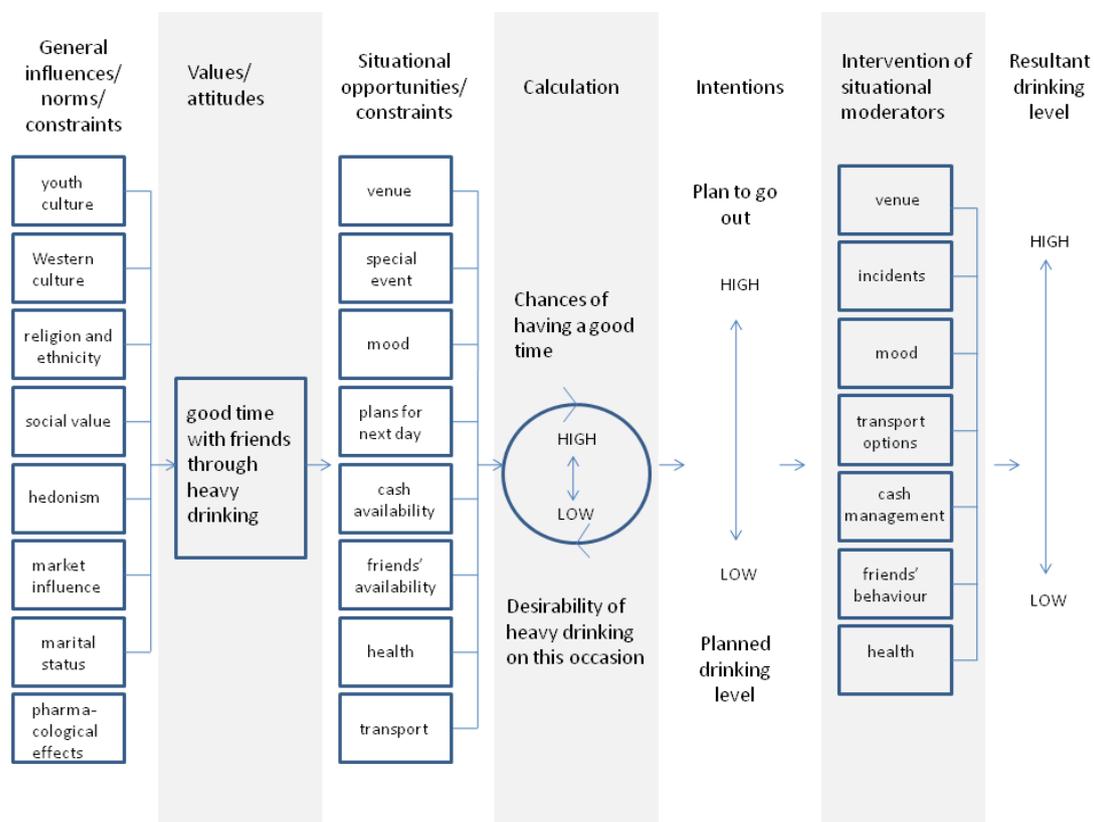


Figure 1 maps the various elements involved in the decision making process concerning heavy drinking. The first column consists of those general influences, norms and constraints that promote (or discourage) a positive attitude towards having a good time with friends through heavy drinking. These elements are cultural, discursive, structural, economic and pharmacological in nature, and position heavy drinking as an acceptable and normalised practice for young adults who engage in the practice, underlying the “culture of intoxication” that characterises youth culture (Measham & Brain, 2005). Many of these factors seem to be taken for granted or act ‘invisibly’, and so do not feature explicitly in the decision process – they simply serve as ‘givens’.

The middle column lists the situational opportunities and constraints that inhibit or facilitate the intention to engage in heavy drinking on a particular occasion. The role of situational constraints in the decision making process has long been recognised in marketing research (Botha et al.,

1999), but less so in alcohol research. They are elements that “limit the formation of leisure preferences and ...inhibit or prohibit participation and enjoyment in leisure” (Jackson, 1991:279). Factors such as the expense of consumption, the inconvenience of not being able to drive home, feeling tired, interpersonal constraints and various health effects can all serve to inhibit the desire to become intoxicated. Young adults weigh these drawbacks against the perceived benefits. In this stage of the process, where decision making is situation specific, calculative thinking is more explicit. Young adults weigh up the benefits of having a good time against the expected costs, often taking into account their plans for other activities that might be affected, such as work the following day. They also estimate the probability of achieving a good time in light of the prevailing circumstances.

The final stage of the process involves reassessing intentions as part of an ongoing evaluation of various moderating factors. This stage reflects the level of actual control over the conditions to achieve the desired outcome (namely, a good night). In some cases, individuals might reserve judgement about how much they intend to drink until they see if the various elements fall into place. Individuals can reassess their intentions in light of moderating elements, such that a person planning to engage in heavy drinking might moderate their drinking in light of friends not being in as a jovial mood as they had anticipated, or because their expected ride home did not eventuate, or because the venue did not live up to expectations. It is also probably true, as some studies have sought to demonstrate (e.g., George, Rogers, & Duka, 2005), that the effects of alcohol also influence the decision making process at this stage of the cycle, particularly as blood alcohol concentration levels increase during the course of the evening, leading to a change in mood or impaired judgement.

More nuanced quantitative and qualitative research designs may be able to confirm and isolate the decision making stages and variables in a more precise manner. It is interesting to note that the various facets of decision making that were uncovered are similar to those identified by Van Wersh and Walker (2009) in their grounded theory study involving semi-structured interviews with heavy drinkers in Britain. They note the way that positive outcomes associated with achieving a good time and successfully minimising associated harms serve to reinforce the acceptability of heavy drinking for individuals in the context of socio-cultural normative influences, “contextual conditions” (corresponding to situational opportunities/constraints) and “intervening conditions” (corresponding to situational moderators). The notion of positive reinforcement is an interesting theory, and would indicate either a post-evaluative component to decision-making or the operation of a conditional response, in that future occasions are shaped by the success or failure of previous ones. Norman and Conner (2006) incorporate past events into their planned behaviour model, suggesting that it may operate in the form of learning or the development of habits. As more longitudinal research is carried out, the nature of these diachronic processes may become clearer.

In line with Gladwin’s view outlined at the beginning of this paper that decision studies can inform the design of more effective interventions, it is worth briefly highlighting some of the implications of the multi-staged model of planned behaviour being proposed here. Interventions aimed at addressing heavy drinking affect different stages of the decision making process. For example, attempts to limit alcohol advertising (Smith & Foxcroft, 2009) and educate young people about responsible drinking (Giesbrecht, 2007) are primarily designed to impact at the level of socio-cultural norms, while attempts to regulate the supply of alcohol or increase fines for drink driving (Toomey et al., 2007) impact on situational opportunities/constraints and also act as moderating elements. Further research to illuminate the impact of interventions on the decision

making process would be useful, and in this respect, the full range of socio-cultural and environmental factors should be considered.

Research that takes the decision making process into account arguably offers the best means for more realistic and effective ways of addressing heavy drinking, or at least for an improved understanding of the impacts of such interventions on young adults' drinking behaviour. However, it is necessary to take account of real life contexts if such understandings are to be 'ground-truthed' in a convincing way, requiring the kinds of qualitative approaches and mixed method studies that have not been commonly employed in alcohol decision studies to date.

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