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# “We Drink, Therefore We Are”: The role of group identification and norms in sustaining and challenging heavy drinking “Culture”

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## Abstract

We consider how ingroup norms, identification and individual attitudes interact when a behaviour (heavy alcohol consumption) is *defining* of an ingroup identity. We sampled 115 students at a UK university, measuring ingroup identification and attitudes to heavy drinking before manipulating the ingroup drinking norm (moderate vs. heavy). Heavy drinking intentions and tendencies to socially include/exclude two target students—one of whom drank alcohol regularly and one of whom did not—were measured. As predicted, participants with a positive attitude to heavy drinking and who identified strongly with the ingroup reported *stronger* intentions to drink heavily when the ingroup had a moderate, rather than a heavy drinking norm, indicating resistance to the normative information. A complementary pattern emerged for the social inclusion/exclusion measures. Implications for theory and interventions that focus on group norms are discussed.

## Keywords

attitudes, group identification, group processes, heavy drinking, norms

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An increasing amount of research recognizes that health-related behaviours such as alcohol consumption are more than just a set of individual lifestyle or health choices. They are also rooted in more social processes involving social identities and norms. Accordingly, research in the social identity tradition has focused on how ingroup norms, along with ingroup identification, interact with individual attitudes to predict behavioural intentions. We seek to extend this research in two ways. First, we examine the interplay between norms, identification and

attitudes in predicting a behaviour (heavy alcohol consumption) that is *defining* of a salient social identity (university student). Second, we examine

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how norms, identification and attitudes interact to predict tendencies to place normative pressure on other ingroup members. We suggest that when a behaviour is social identity-defining for ingroup members, then normative information is more liable to be resisted than accepted—especially by those highly identified with the group.

### *Attitudes, norms and behavioural intentions*

Norms are commonly conceptualized as an accepted set of behavioural prescriptions or standards that apply in a particular social setting. Their potential to influence behavioural intentions has long been recognized (Borsari & Carey, 2001, 2003; Cooke, Snichotta, & Schuz, 2007; Kuther & Higgins-D'Alessandro, 2003; Norman, Armitage, & Quigley, 2007; Perkins, 2002; Perkins, Haines, & Rice, 2005; Power, Stewart, Hughes, & Arbona, 2005). Various approaches, such as the theory of planned behaviour (Ajzen, 1985, 1988, 1991) and the work of Cialdini and colleagues (e.g., Cialdini, Reno, & Kallgren, 1990; Cialdini & Trost, 1998), emphasize the direct, independent role that norms have in predicting behavioural intentions. Other approaches—such as the theory of normative social behaviour (Rimal & Real, 2005)—highlight the potential for descriptive norms to interact with other factors such as group identity.

Research in the tradition of social identity (Tajfel & Turner, 1979) and self-categorization theories (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) has emphasized that norms are linked to specific, contextually-relevant reference groups (Terry & Hogg, 1996, 2000). The relevant social norms in any particular context are therefore those defined by a salient social (i.e., group) identity (e.g., “student”, “soccer fan”, “Christian”). Building on this approach, Terry and Hogg (1996, 2000) suggest that attitudes and group norms have an interactive effect on behavioural intentions, such that the link between attitudes and intentions is strengthened when attitudes are consistent with a salient group norm (Terry, Hogg, & White, 1999; White, Hogg, & Terry, 2002; White, Smith, Terry, Greenslade, & McKimmie, 2009;

see Smith & Louis, 2009, for a review). This pattern has been found in relation to various different types of behaviour, including health-related behaviours such as using sun protection (Terry & Hogg, 1996), and environmental behaviour such as recycling (Terry et al., 1999).

We suggest that there is scope to extend this model by considering the role of social identity threat in shaping group members' reactions to normative information. The basis of this suggestion is the observation that in many of the studies cited above, the relevant behaviour is arguably not central to or defining of the reference groups that are salient to participants. In the absence of a clear, pre-existing group norm in relation to the behaviour, group members are more likely to accept at face value the normative information presented in these studies.

This raises the question of whether normative feedback would have the same effect when the behaviour in question is more central to or defining of participants' salient ingroup. If group members have a clear sense of the importance of a specific behaviour to ingroup identity, then normative feedback regarding the importance or prevalence of the behaviour will be interpreted accordingly (e.g., Smith, Terry, Crosier, & Duck, 2005). On the one hand, if normative feedback confirms the assumed importance of the behaviour, then there is less need to react to that feedback—it simply underlines the existing image of the ingroup. On the other hand, if normative feedback suggests that an important, group-defining behaviour is not particularly normative (in the descriptive sense), it may be interpreted as a challenge to ingroup identity and be *resisted* rather than accepted and acted upon. In such a situation, group members may resist the implied challenge by engaging *more* in the behaviour as a way of reasserting its importance and the ingroup image—a backlash effect.

In line with existing work on norms and the attitude-behaviour link, we also suggest that ingroup identification plays a crucial moderating role (Norman, Clark, & Walker, 2005; Schofield, Pattison, Hill, & Borland, 2001; Terry & Hogg, 1996). High ingroup identification has been

shown to predict greater commitment to an ingroup and a willingness to resist challenges to it. In contrast, low levels of identification are associated with more instrumental or opportunistic reactions to such challenges. This means that low identifiers typically “go with the flow” in terms of dominant opinion, and take the path of least resistance when it comes to reacting to feedback about the group (Ellemers, Spears, & Doosje, 1997; Jetten, Branscombe, Spears, & McKimmie, 2003; Spears, Doosje, & Ellemers, 1997). Developing the reasoning above, we suggest that when it comes to reacting to normative feedback regarding a group-defining behaviour, resistance to challenging normative feedback will be greater among those who identify strongly with the group.

In sum, we hypothesize that when a behaviour is central to or defining of an ingroup identity, the interplay between attitudes, norms and identification may take a different form to that observed in previous work. One specific and counter-intuitive prediction that follows from our reasoning relates to those with a positive attitude to the behaviour in question. We predict that among high identifiers, descriptive normative feedback that is *inconsistent* with the behaviour (thereby challenging its importance) may produce *stronger* intentions to engage in the behaviour than when normative feedback is consistent with the behaviour. In other words, high identifiers will resist normative feedback that runs counter to their attitude and the group image. In contrast, low identifiers with a positive attitude to the behaviour will be less likely to react against the normative feedback, because they are less concerned with the image of the ingroup.

We test these predictions in the context of alcohol consumption among university students. Previous research has confirmed the role of norms in predicting alcohol consumption in this population (e.g., Cooke et al., 2007; Johnston & White, 2003; Norman et al., 2007; Rimal & Real, 2005), and normative feedback has formed the basis for many interventions intended to reduce alcohol consumption among students (e.g., Perkins, 2002; Perkins et al., 2005).

Following a pilot study to confirm the importance of alcohol consumption to ingroup (student) identity, we examined how descriptive normative feedback regarding the prevalence of heavy drinking among students at the ingroup university affects the association between participants’ attitude towards heavy alcohol consumption and their intentions to drink heavily. While alcohol consumption has previously been studied from a social identity perspective (e.g., Johnston & White, 2003), this earlier research measured participants’ subjective normative beliefs rather than directly manipulating feedback about the descriptive norm of the ingroup. Norms were also conceptualized in terms of approval from close others in a general sense, rather than in terms of the typical behaviour of ingroup members.

### *Norm enforcement and cultural change*

While group norms clearly help to determine individuals’ behaviour, individuals do not always passively accept and conform to “given” group norms (Asch, 1951). Rather, people are agentic and strategic when reacting to normative information (Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007), and are active in *creating* group norms and culture in the first instance (Sherif, 1936/1965; Thibaut & Kelley, 1959). More broadly, the norms and “culture” of a group endure over time because they are actively policed and enforced by group members (Marques, Abrams, & Serodio, 2001), or *change* over time when group members contest and challenge them (Reicher, 1996; Stott, Adang, Livingstone, & Schreiber, 2008). An important but under-researched aspect of the link between norms, identification and behaviour—especially in relation to alcohol consumption—is how group members *enforce* norms on fellow ingroup members.

One important way in which group members can protect or enforce ingroup norms is to socially include or exclude ingroup members who do or do not meet ingroup standards (Castano, Paladino, Coull, & Yzerbyt, 2002; Marques et al.,

2001; Ojala & Nesdale, 2004; Schmitt & Branscombe, 2001). In the present study, we examine tendencies to include or exclude two target ingroup members, one a heavy drinker and the other a non-drinker. More specifically, we examine how participants differentially apply this form of social pressure on the targets as a function of the ingroup norm and their own attitude to heavy drinking.

For those with a positive attitude to heavy drinking, we hypothesize that the tendency to differentially place social pressure on the target ingroup members will depend on their level of group identification and the prevailing ingroup norm. For high identifiers, the tendency to place social pressure on the non-drinking target, relative to the drinking target, will be stronger when the prevailing norm is for moderate rather than heavy drinking, reflecting their desire to resist the challenging normative feedback. In contrast, low identifiers with a positive attitude to heavy drinking will place greater social pressure on the non-drinker when the prevailing norm is for *heavy* drinking. This is because low identifiers will only place social pressure on others when they are clearly supported by the majority opinion. When the drinking norm is moderate, they do not have this support, and therefore shy away from socially pressuring others. In other words, social pressure from low identifiers is driven by what they can get away with, rather than what is in the interests of the ingroup.

## Pilot study

The aim of the pilot study was to confirm the assumption that alcohol consumption is an important aspect of participants' identity as university students, not only in absolute terms, but relative to a range of other health and environmental behaviours that have formed the basis of previous work on attitude-behaviour relations. Specifically, we gauged the importance to university student identity of alcohol consumption, condom use, use of sun protection, preventing littering, and recycling.

## Participants

Forty undergraduate students ( $M$  age = 19.46,  $SD$  = 3.99) at a UK university participated in return for a small amount of chocolate. Thirty-one participants were female, eight were male, and one did not record their sex.

## Measures

The importance of each of the five behaviours to ingroup identity was measured on 7-item scales ( $\alpha$ s  $\geq .70$ ) including the items “\_\_\_ is an important part of being a Cardiff student”; “\_\_\_ is a big part of being a Cardiff student”; “\_\_\_ is central to the image of Cardiff students”; “At Cardiff, \_\_\_ plays very little role in the student experience”; “If I had to pick one thing that defines Cardiff student identity, it would be \_\_\_”; “When I think about what it means to be a Cardiff student, I would not think of \_\_\_” (reverse scored); and “\_\_\_ has very little to do with the identity of Cardiff students” (reverse scored). Participants responded on 7-point scales ranging from -3 (strongly disagree) to 3 (strongly agree).

Participants were also asked to rank order the five behaviours in terms of their importance to ingroup identity, assigning a value from 1 to 5 where 1 = most important and 5 = least important. Finally, they were asked to choose one of the five behaviours as being the most defining of ingroup identity.

## Results

Means and standard deviations for each of the behaviours were as follows: alcohol consumption ( $M$  = 0.58;  $SD$  = 1.21); condom use ( $M$  = -0.74;  $SD$  = 1.06); sun protection ( $M$  = -1.92;  $SD$  = 0.98); preventing litter ( $M$  = -1.18;  $SD$  = 1.37); recycling ( $M$  = -0.54;  $SD$  = 1.53).

A repeated-measures ANOVA with behaviour as a five-level factor revealed a significant main effect of behaviour,  $F(4, 156) = 31.90$ ,  $p < .001$ ,  $\eta^2_p = .450$ . Planned pairwise comparisons confirmed that alcohol consumption was seen as more important to ingroup identity than each of

the other behaviours,  $F_s(1, 39) > 14.24, p_s < .001$ ,  $\eta^2_p s > .268$ . A one-sample  $t$ -test also confirmed that scores on the importance of alcohol scale were significantly above the midpoint of 0, indicating agreement,  $t(39) = 3.02, p = .004$ . In contrast, scores on all other behaviours were significantly below the midpoint, indicating disagreement,  $t_s(39) < -2.23, p_s < .031$ .

The perceived importance of alcohol consumption to ingroup identity was also confirmed by the other measures. Alcohol consumption ( $M$  ranking = 1.26,  $SD = 0.64$ ) was ranked as more important than condom use ( $M$  ranking = 2.58,  $SD = 1.03$ ), sun protection ( $M$  ranking = 4.89,  $SD = 0.31$ ), preventing littering ( $M$  ranking = 3.63,  $SD = 0.63$ ), and recycling ( $M$  ranking = 2.68,  $SD = 0.93$ ). Finally, 30 (75%) participants selected alcohol as the most important behaviour in the forced choice measure. The next most selected behaviour was recycling, selected by five (12.5%) participants.

Having established that alcohol consumption is a defining aspect of ingroup identity for this population—not least of all relative to other health-related and environmental behaviours—we proceeded to the main study.

## Method

### Participants

One-hundred and fifteen undergraduate students (54 males and 61 females) at a UK university, with a mean age of 20.07 years ( $SD = 2.36$ ), participated in the study in return for entry into a prize draw. Participants were recruited via an online recruitment system, or were approached at university halls of residence or departments. Forty-seven were in their first year of study, 51 in their second year, 13 in their third year, and three in their fourth year. One participant did not record their year of study.

### Design

The study included one directly manipulated variable (group norm: heavy or moderate levels of

alcohol consumption), and two measured predictors: attitudes to heavy drinking, and ingroup (university) identification. The dependent variables were heavy drinking intentions, and tendencies to socially include or exclude target ingroup members.

### Materials

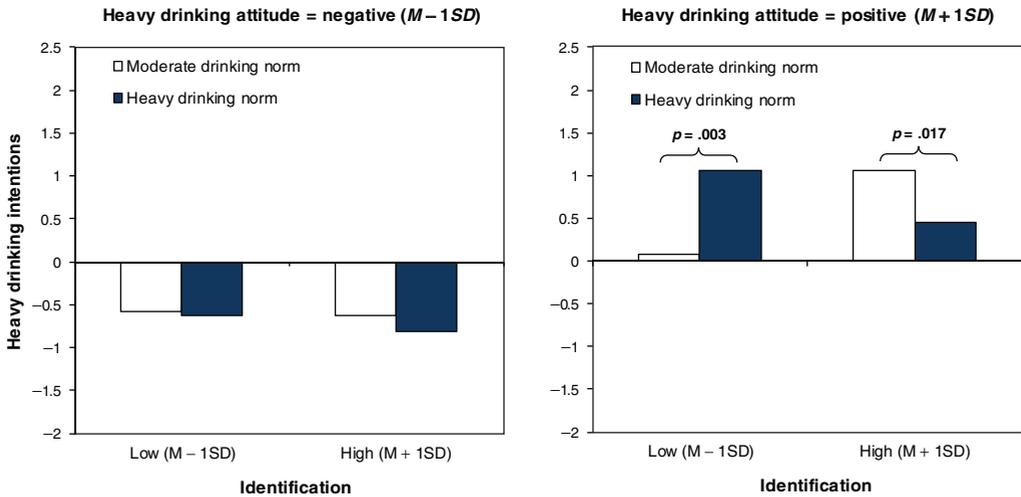
Data were gathered by means of a questionnaire booklet which was presented to participants, consisting of two separate surveys. The first (containing the identification and drinking attitude measures, the group norm manipulation, and the behavioural intention measures) was described as relating to drinking behaviour among students at the ingroup university. The second (containing the social inclusion/exclusion measures) was described as relating to views on a proposed “buddy scheme” for new students at the university.

### Identification and drinking attitude measures

Ingroup identification was measured using a 4-item scale,  $\alpha = .85$  (Doosje, Ellemers, & Spears, 1995). Example items include “I see myself as a [name of university] student”, and “I identify with other [name of university] students”. Responses were recorded on 7-point scales ranging from  $-3$  (strongly disagree) to  $3$  (strongly agree).

Next came a table reporting the number of UK units of alcohol contained in a number of popular alcoholic drinks (one UK unit = 10ml of pure alcohol; e.g., 25ml of 40% ABV whiskey). Participants were instructed to refer to this index when estimating units of alcohol, or evaluating the information that formed part of the group norm manipulation.

Participants’ attitudes to heavy drinking were measured using a 6-item scale ( $\alpha = .90$ ). On a scale of  $-3$  to  $3$ , participants were asked to respond to the statement, “Drinking more than 10 units of alcohol in an evening at least once over the next seven days would be:”, using the following semantic differential items: abnormal–normal; unenjoyable–enjoyable; unusual–usual; foolish–wise; bad–good;



**Figure 1.** Interaction between heavy drinking attitude, group norm and identification on intentions to drink heavily.

and unpleasant-pleasant. In each case the negative adjective was anchored with  $-3$ , and positive adjective with  $3$ , so that a high, positive score on the scale indicated a positive attitude to heavy drinking. The correlation between ingroup identification and attitudes to heavy drinking was relatively small,  $r(113) = .243, p = .009$ .

**Norm manipulation** Participants were then presented with a graph purporting to show results of previous research into how much alcohol was consumed by students at the ingroup university, in terms of units per student per night out. In the moderate drinking norm condition, the graph indicated that the mean/median/modal number of units consumed by students on a night out was 10. In the heavy drinking norm condition, the graph indicated that the mean/median/modal number of units consumed by students on a night out was 20. Each graph was followed by a sentence that summarized the data: "From Figure 1 it can be seen that Cardiff University students drink on average 10 [20] units of alcohol on an evening of drinking." This manipulation was later checked by an open-ended item that asked participants to indicate what they thought to be the mean number of

units of alcohol consumed on an average night of drinking by their fellow university students.

**Heavy drinking intentions** Intentions to drink heavily were measured using two items. The first of these asked participants to indicate the number of days in the next week (if any) on which they expected to consume 10 or more units of alcohol. The second item asked participants to indicate the number of units of alcohol they expected to drink over the next seven days. Responses to these items were standardized and averaged to form a single measure ( $r = .686$ ).

**Norm enforcement tendencies** The items measuring tendencies to enforce the ingroup norm were contained in a separate section of the questionnaire. This section was presented as a second, unrelated survey of attitudes toward a (plausible but fictitious) "buddy" scheme that was being proposed by the ingroup university's students' union.

Participants were instructed to read descriptions of two students, and to respond to the statements that followed each description. One description purported to come from a person who did not drink alcohol, and preferred to avoid

alcohol when socializing: "I enjoy going out with friends and meeting new people. The only aspect of going out I'm not keen on as a non-drinker is being surrounded by people who've had too much to drink. Due to this I prefer non-drinking venues." The other description was from a person who did drink alcohol, and saw this as an important part of socializing: "I'm always up for a night out as long as there's plenty of alcohol involved. I enjoy having a laugh and drinks with friends. I believe there's no better way to get to know someone than getting drunk together!" The descriptions were worded so as to give no indication of the target's gender or age, and to make them sound equally sociable.

Following each description was a 5-item social inclusion/exclusion scale (e.g., I would like to get to know the person better; I identify strongly with this person; I would tend to avoid this person on a night out;  $\alpha_s = .778$  and  $.874$  for the non-drinker and drinker, respectively). Responses were recorded on 7-point scales ranging from  $-3$  (strongly disagree) to  $3$  (strongly agree).

Finally, participants recorded their age, gender, degree course, and year of study.

### Procedure

After giving their informed consent to participate, participants completed the questionnaire in the presence of the researcher, either at the place of recruitment or in a quiet room in the School of Psychology for those recruited online. On completion, participants were thanked and debriefed. The debriefing stressed that the information in the norm manipulation was fabricated, and contained contact details for support services within and outwith the university.

## Results

### Manipulation check

A three-way ANOVA with drinking norm (moderate v. heavy), identification (continuous, mean-centred), and heavy drinking attitude (continuous, mean-centred)<sup>1</sup> as factors revealed a significant

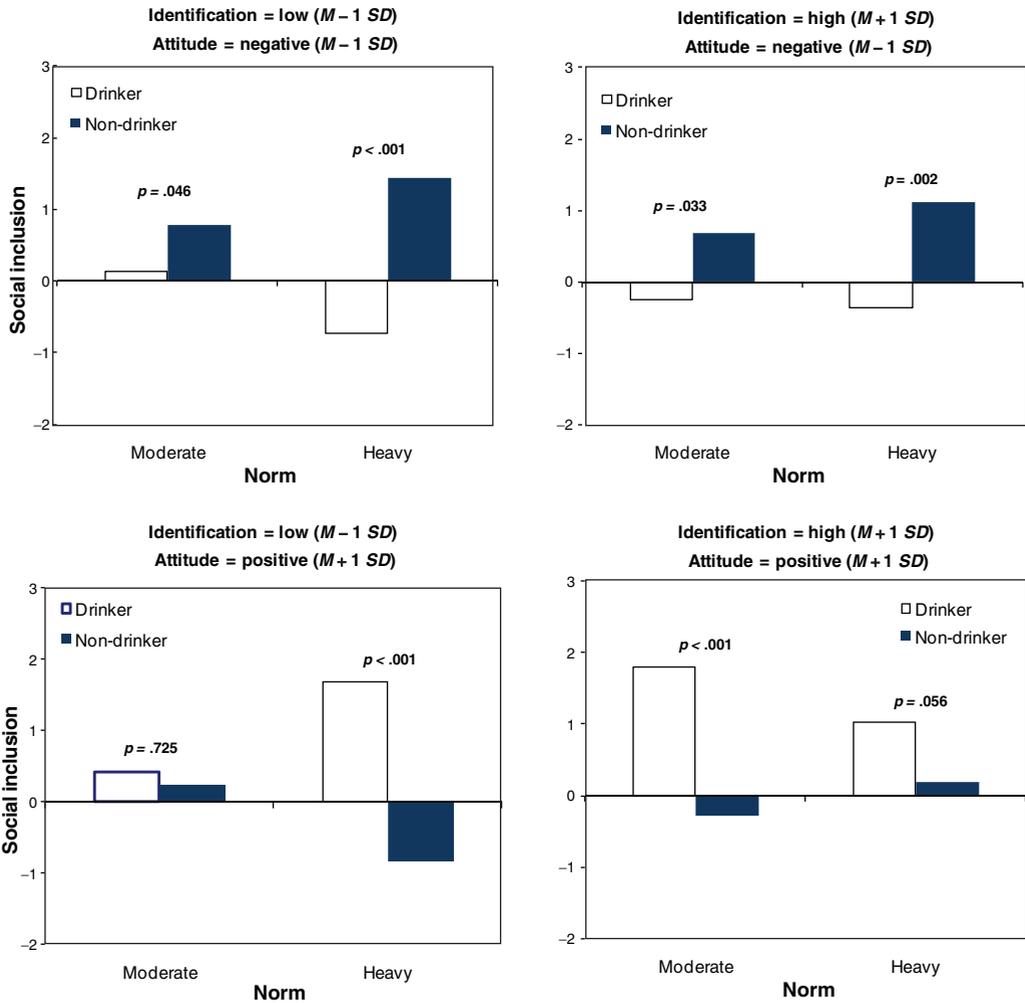
main effect of norm on the norm manipulation check,  $F(1, 97) = 59.34, p < .001, \eta_p^2 = .380$ . As expected, participants estimated the average number of units consumed by ingroup students to have been higher in the heavy drinking norm condition ( $M = 16.41, SD = 4.44$ ) than in the moderate drinking norm condition ( $M = 10.97, SD = 2.25$ ). There was also a main effect of heavy drinking attitude,  $F(1, 97) = 5.73, p = .019, \eta_p^2 = .056$ , indicating that the estimated number of units increased as participants' attitude to heavy drinking became more positive. No other effects were significant.

### Heavy drinking intentions

A similar three-way ANOVA was conducted on the scale of heavy drinking intentions. Lower-order effects of heavy drinking attitude and a norm by identification interaction were qualified by a three-way interaction between all of the factors,  $F(1, 107) = 6.92, p = .010, \eta_p^2 = .061$ . This interaction is illustrated in Figure 1. Further analysis revealed that the two-way interaction between norm and identification was only significant when the heavy drinking attitude was positive ( $M + 1SD$ ),  $F(1, 107) = 12.60, p = .001, \eta_p^2 = .105$  ( $F < 1$  when the heavy drinking attitude was negative,  $M - 1SD$ ). Analysis of the simple main effects of norm revealed that when the heavy drinking attitude was positive, the effect of norm was significant both when identification was low ( $M - 1SD$ ),  $F(1, 107) = 9.11, p = .003, \eta_p^2 = .078$ , and when identification was high ( $M + 1SD$ ),  $F(1, 107) = 5.86, p = .017, \eta_p^2 = .052$ , but in opposing directions. When identification was low, intentions were stronger when the norm was for heavy drinking. When identification was high, intentions were stronger when the norm was for moderate drinking.

### Norm enforcement

A 2 (norm: moderate v. heavy) x 2 (target: drinker v. non-drinker) x identification (continuous, mean-centred) x heavy drinking attitude (continuous, mean-centred) mixed ANOVA with repeated



**Figure 2.** Interaction between heavy drinking attitude, group norm and identification on tendencies to differentially socially include/exclude an ingroup target who regularly drinks, and an ingroup target who does not drink.

measures on the target factor was conducted on the social inclusion/exclusion scale. An effect of target would mean that there is a difference between norm enforcement tendencies toward the drinker and non-drinker, while an interaction involving target would mean that the difference between the targets depends on one or more of the other factors.

All lower order effects were qualified by a four-way interaction between all of the factors,  $F(1, 107) = 12.50, p = .001, \eta^2_p = .105$ . This interaction is illustrated in Figure 2. Further analysis

revealed that the three-way interaction between target, norm, and identification was only significant when the heavy drinking attitude was positive ( $M + 1SD$ ),  $F(1, 107) = 11.76, p < .001, \eta^2_p = .099$  ( $F = 1.17$  when the heavy drinking attitude was negative,  $M - 1SD$ ). In turn, when the heavy drinking attitude was positive, the two-way interaction between target and norm was significant both when identification was low ( $M - 1SD$ ),  $F(1, 107) = 9.34, p = .003, \eta^2_p = .080$ , and when identification was high  $F(1, 107) = 4.42, p = .038, \eta^2_p = .040$ . Analysis of the simple main effects of

target when attitude was positive and identification was low revealed that the effect of target was significant in the heavy norm condition,  $F(1, 107) = 18.36, p < .001, \eta_p^2 = .146$ , but not in the moderate norm condition,  $F < 1$ . In the heavy norm condition, the non-drinker was more likely to be socially excluded than the drinker.

Analysis of the simple main effects of target when attitude was positive and identification was high revealed that the effect of target was significant in the moderate norm condition,  $F(1, 107) = 29.20, p < .001, \eta_p^2 = .214$ , but only marginally significant in the heavy norm condition,  $F(1, 107) = 3.73, p = .056, \eta_p^2 = .034$ . In both cases, the non-drinker was more likely to be socially excluded than the drinker, but to a greater degree in the moderate norm condition.

## Discussion

Previous research has demonstrated the interplay between norms, attitudes and identification in shaping intentions to perform a range of health-related and environmental behaviours. However, the accumulated evidence arguably neglects one important issue; namely, what happens when the behaviour in question is central to or defining of an ingroup identity? We suggest that when this is the case, the effect of descriptive norm information in particular may have a quite different effect to that typically observed in the literature. This is because normative information has the potential to confirm or—crucially—to challenge beliefs about a defining aspect of ingroup identity. Specifically, we hypothesized that when normative information contradicts beliefs about the importance of a behaviour to ingroup identity, high identifiers in particular will seek to *resist* this information, bolstering their intentions to perform the identity-defining behaviour, and placing normative pressure on other ingroup members.

We tested this hypothesis by sampling from a group that stereotypically endorses high levels of heavy drinking among its members, namely, UK university students. Following a pilot study confirming the importance of alcohol consumption to the ingroup identity, we examined how heavy

drinking attitudes, group norms and group identification combined to shape not only intentions to drink heavily, but also tendencies to put social pressure—in the form of social inclusion/exclusion—on others who do or do not consume alcohol. Results supported our hypothesis. Regarding heavy drinking intentions, those with a positive attitude to heavy drinking reported stronger intentions to drink heavily when (1) they identified strongly with the ingroup but the ingroup had only a moderate drinking norm, or (2) they did not identify strongly with the ingroup but the ingroup had a heavy drinking norm.

A complementary pattern emerged for the tendency to place social pressure on target ingroup members. Among those with a positive attitude to heavy drinking, social pressure was applied differentially to a drinking and non-drinking target depending on participants' level of group identification and the ingroup norm. High identifiers socially excluded the non-drinker more than the drinker, but only when the ingroup norm was one of moderate alcohol consumption—that is, when the norm information challenged the ingroup stereotype. In contrast, low identifiers socially excluded the non-drinker more than the drinker, but only when the norm was one of *heavy* alcohol consumption: a more opportunistic reaction based on the dominant opinion of other ingroup members.

Together, these data show that, as predicted, group identification was a key factor. High identifiers reported (a) stronger drinking intentions, and (b) stronger tendencies to differentially place social pressure on a non-drinker, but only when the prevailing norm was for moderate drinking. Low identifiers displayed similar patterns, but only when the prevailing norm was for *heavy* drinking—in other words, when their actions would be supported by a majority of ingroup members. This pattern for low identifiers is particularly striking because it is the pattern typically observed for *high* identifiers in studies of other behaviours (see Smith & Louis, 2009). The attenuation of drinking intentions among low identifiers with a positive attitude to heavy drinking may result from the fact that drinking alcohol is

typically a social activity, especially in a university context. Situations in which alcohol is being consumed are therefore ones in which social pressures are likely to be particularly acute. Low identifiers, while not acting on an internalized norm, may nevertheless still be sensitive to the possibility of sanction and social exclusion from friendship groups and suchlike—a more instrumental or pragmatic reason for modifying behaviour in line with a descriptive norm, echoing Turner's (1991) distinction between referent informational influence based on social identity, and mere public compliance.

These findings extend previous work on the interplay between norms, attitudes and identification in two important ways. First, they suggest that the effects of descriptive norm information depend on how important the behaviour in question is to the salient ingroup identity. We began by noting that studies of how norms and identification moderate the effect of attitudes on behaviour have typically examined health and environmental behaviours that are not stereotypically defining of the reference groups sampled. This is important because it provides a "blank" background against which norms can be defined and their influence assessed, especially in terms of how they moderate attitude-behaviour correspondence. The present findings suggest that a different pattern emerges when the behaviour is defining of ingroup identity. Among high identifiers in particular, normative feedback may be resisted if it conflicts with the ingroup stereotype. This suggests that there is scope to extend the social identity model of attitude-behaviour correspondence to include factors such as identity content (how social identities are defined in relation to the target behaviour, prior to any intervention), on the one hand, and identity threat, on the other. The latter is, we suggest, valuable in determining the precise effect of norm-based interventions, shaping whether high identifiers in particular choose to accept or resist normative information about the ingroup.

Second, the present findings offer, to our knowledge, the first evidence that group processes influence individuals' tendencies not only to

drink heavily, but also to engage in forms of norm enforcement that help to maintain heavy drinking as a group norm. This is an important contribution because invoking concepts such as norms and "culture" to explain behaviour raises questions about why and how these norms develop and persist, and how they might be challenged. We suggest that an important step towards answering these questions can be taken by examining how group members seek to influence group norms and other ingroup members, and well as the more well-researched issue of how group norms influence group members' behaviour. In particular, we hope that the present findings stimulate further research into the conditions under which group members enforce particular norms—but also when they seek to challenge and change those norms.

In terms of practical implications, the present findings provide insight into why norm-based interventions that attempt to change heavy drinkers' behaviour can have equivocal effects on alcohol consumption (Thombs, Dotterer, Olds, Sharp, & Raub, 2004; Toomey & Wagenaar, 2002). Simply focusing on describing or defining the incidence of heavy drinking among specific social groups (e.g., university students; young women) is likely to have differential effects depending on the extent to which people identify with the group in question. Emphasizing that heavy drinking is widespread and group-defining (as media coverage often does, for example) is likely to temper its incidence among high identifiers, but may backfire among low identifiers, who see it as an opportunity not only to drink heavily themselves, but also to place strong social pressure on non-drinkers, thereby strengthening the heavy drinking culture. Conversely, a strategy of suggesting that heavy drinking is *not* particularly widespread may have the desired effect among low identifiers, but backfire among high identifiers. One solution to this dilemma may be to focus instead on encouraging those with a *negative* attitude to heavy drinking to exert social influence within the group. As the present data suggest, among this group the tendency to exert social pressure *away*

from heavy drinking emerges at high and low levels of identification, and independently of the descriptive ingroup norm. Interventions that encourage and empower social influence by these group members—rather than directly modifying the behaviour of heavy drinkers—are therefore less likely to backfire.

### *Limitations and future research*

While the present findings offer encouraging support for our hypotheses, they could be supplemented by direct comparison of the role of normative feedback regarding an identity-defining vs. a non-identity-defining behaviour within the same social category. We would expect that the present pattern would be replicated for the identity-defining behaviour, while the non-identity-defining behaviour would produce a pattern more in keeping with other research on the social identity account of the attitude-behaviour link (see Smith & Louis, 2009). More generally, the present findings would benefit from replication using a different behaviour and/or a different social category. Providing that the behaviour in question is identity-defining in the same way that alcohol consumption was for the present sample, we would expect the present pattern of findings also to emerge in other contexts.

### **Conclusion**

We have argued that research into the role of attitudes, norms and identification in shaping behavioural intentions can be extended by considering: (1) how the importance of a behaviour to ingroup identity shapes reactions to normative feedback; and (2) processes of norm enforcement between group members. In the context of heavy alcohol consumption among a student ingroup, the findings support our contention that when a behaviour is defining of an ingroup identity, descriptive normative feedback is likely to be resisted by high identifiers when it challenges the ingroup stereotype. This suggests that researchers and practitioners alike can benefit from considering not only the importance of

social identity to health-related behaviours, but also the importance of these behaviours to social identities.

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### **Note**

1. As an instantiation of the general linear model, the ANOVAs that include continuous predictors here are equivalent to moderated regression analyses. Simple effects of manipulated variables were calculated as simple main effects at specified levels ( $M \pm 1SD$ ) of the continuous variables.

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