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Subjective Reality: The Influence of Perceived and Objective Conversational Valence on Binge Drinking Determinants

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Previous studies have shown that interpersonal communication, and particularly perceived conversational valence (i.e., the perceived negativity or positivity of conversations) about health topics, influences health determinants. On the basis of 43 dyads ($N = 86$) discussing the topic of alcohol consumption, this study is the first to show that whereas perceived and objective conversational valence are positively related, only perceived conversational valence is a significant predictor of binge drinking attitudes and intentions. Thus, subjective reality matters more than objective reality. Furthermore, only the perceived valence of the participants' own contributions—and not of their conversation partners—influences binge drinking intentions, indicating that self-persuasion is more influential than persuasion by others. Thus, conversations in which discussants themselves express negative opinions about unhealthy behaviors can enhance public health.

Interpersonal communication about unhealthy behaviors, such as excessive alcohol consumption, has been shown to influence social cognitive determinants of unhealthy conduct (e.g., Southwell & Yzer, 2007). A study on smoking cessation, for example, demonstrated that anti-smoking campaigns elicited discussions which, in turn, increased the intention to quit smoking (Brennan, Durkin, Wakefield, & Kashima, 2010). Moreover, Real and Rimal (2007) revealed that talking about alcohol increased subsequent drinking intentions (see also Hendriks, Van den Putte, De Bruijn, & De Vreese, 2012; Van den Putte, Yzer, Southwell, de Bruijn, & Willemsen, 2011). Although it has been shown that whether people talk about alcohol and smoking is important for the determinants of these behaviors, limited research exists on the influence of how people talk about health topics. A few studies have shown that perceived conversational valence (i.e., how negative or positive people perceive their conversations to be) about health-related behaviors is important for health attitudes and intentions (e.g., Dunlop, Kashima, & Wakefield, 2010; Van den Putte, Monshouwer, De Bruijn, & Swart, 2010). Whether this perceived conversational valence is related to a more objective measure of conversational valence, however, is not yet known. Moreover, whether the perception of the valence of the conversation is more predictive of subsequent attitudes and intentions than the objectively determined conversational valence is unclear. Last, although research has demonstrated the importance of self-perception and self-persuasion, it has not yet been explored whether the contribution of the self in the conversation is more important for discussion effects than the contribution of the conversation partner (e.g., Bem, 1965; Wilson & Dunn, 2004).

To address these lacunae in previous literature, the present study—focused on the effects of conversations about alcohol on binge drinking determinants—had three goals. First, we aimed to examine the association between perceived conversational valence and objective conversational valence. Second, we investigated how perceived and objective conversational valence linked with changes in subsequent binge drinking attitudes and intentions. Third, we compared the effects of conversational valence of the participants themselves with the influence of conversational valence of the conversation partners. By investigating how perceived and objective conversational valence link with attitude and intention change, we provide important insight into which construct is more important for changes in health determinants. Furthermore, if our research shows that especially the conversational valence of the participants themselves—and not of the conversation partners—induces healthy binge drinking attitudes and intentions, health promotion attempts should stimulate discussions wherein the person is motivated to actively discuss alcohol negatively.

Perceived Versus Objective Conversational Valence

Conversational valence has been shown to be important for the determinants of various health behaviors, such as cannabis use (Van den Putte et al., 2010), binge drinking

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(Hendriks, De Bruijn, & Van den Putte, 2012), and obtaining an HPV vaccine (Dunlop et al., 2010). Hendriks and colleagues (2012), for example, demonstrated that conversations that were perceived as negative toward alcohol consumption and binge drinking decreased subsequent intentions to binge drink. These studies had in common that they asked participants to indicate the valence of their conversations and thereby relied on measures of conversational valence obtained through self-perception and self-report.

Measures based on self-report and self-perception have several advantages and disadvantages. On the one hand, these perceived measures provide a unique insight into respondents' perceptions, knowledge, and values, and are easier and less expensive to collect than objective measures. On the other hand, self-perception measures can at times be at odds with reality, for example, given the fact that people find it difficult to introspect or recall (Paulhus & Vazire, 2010). Therefore, there is a need to examine whether perceived conversational valence measures are in agreement with more objective conversational valence measures. Outside the context of interpersonal communication, there is a vast amount of research investigating the relation between self-reported measures and more objective measures (e.g., Crockett, Schulenberg, & Petersen, 1987; Ordoñana, González-Javier, Espín-López, & Gómez-Amor, 2009), generally showing that self-reported measures correlate positively with more objective measures. Del Boca and Darkes (2003), for example, concluded that self-reported alcohol consumption measures reliably reflect actual alcohol intake. However, no research to date has focused on the association between objective and perceived conversational valence. Therefore, a first goal of the present study was to investigate the extent to which perceived conversational valence (i.e., obtained through self-report) was related to a more objective conversational valence (i.e., obtained through content analyses). We predicted,

> Hypothesis 1: Objective and perceived conversational valence measures are positively related.

The Influence of Perceived and Objective Conversational Valence

Although it is important to assess an objective measure of conversational valence and understand the link between perceived and objective conversational valence (in line with Crockett et al., 1987), we argue that it is not necessarily the case that objective conversational valence is a more important predictor of subsequent health attitudes and intentions than perceived conversational valence. A second goal of the present research was to compare perceived with objective conversational valence in terms of changes in binge drinking determinants, thereby providing insight into the question whether the perception of the conversation or the objectively observed conversation is particularly relevant for health changes.

We argue that it is especially important how people perceive their discussions about health topics and how they interpret, experience, and remember information exchanged during health-related conversations. For example, research

has shown that the influence of conversations on attitudes and knowledge depends on whether the discussant experiences and remembers the conversation as containing positive or negative arguments (Vinokur & Burnstein, 1974). The importance of perception is also in line with research on self-perception theory (Bem, 1965; Wilson & Dunn, 2004), entailing that people infer their attitudes and other internal states from perceptions of their own conduct. For example, when participants are asked to behave in a certain way or play a role in line with a certain viewpoint, this induces attitudes in accordance with this viewpoint, presumably because participants perceive their own behaviors as indicative for their actual preferences (e.g., Janis & King, 1954; Strack, Martin, & Stepper, 1988). Thus, the subjective experience and perception of the valence of the discussion seems especially relevant for subsequent attitudes and intentions. Given these notions, we expected the following:

> Hypothesis 2: Perceived conversational valence is more strongly related to attitudes and intentions toward binge drinking as compared with objective conversational valence.

The Role of Self-Persuasion and the Influence of the Conversation Partner

Self-perception thus seems important for determining attitudes and evaluations. A potential implication of this could be that how negatively or positively one speaks during a health conversation is more important for changes in health attitudes and intentions than how positively or negatively one's conversation partner speaks. This comparison between conversational valence of the self and conversational valence of the conversation partner has not yet been investigated. Research focusing on interpersonal communication usually assumes that people are influenced by the persons to whom they are speaking (e.g., Katz & Lazarsfeld, 1955) and not necessarily by what people are saying themselves. The third goal of this study was therefore to investigate this comparison and to shed light onto the question whether actively voicing your own opinion is really necessary for conversation effects to occur, or whether listening to your conversation partner voicing his or her opinion is equally influential.

Self-generated persuasion (i.e., convincing oneself by voicing arguments or opinions) has been shown to result in more powerful and long lasting effects as compared with other persuasion attempts, given the fact that people view themselves as especially credible and reliable (Pratkanis & Aronson, 2001) and because people tend to come up with arguments they themselves find specifically compelling (e.g., Greenwald & Albert, 1968). This is consistent with the saying-is-believing effect (Higgins, 1999), that is, when people are asked to verbalize a particular opinion, this elicits judgments, knowledge, and attitudes in agreement with the expressed opinion.

On the one hand, expressing a viewpoint could result in a shift in attitudes (e.g., when the expressed viewpoint is counterattitudinal). In their classic work, Janis and King

(1954), for example, showed that when people gave a counterattitudinal speech, their attitudes changed more strongly in the direction of the speech as compared with when they just listened to someone else delivering the same speech. This possibility has also been stressed by cognitive dissonance research, which shows that counterattitudinal behaviors and statements can cause people to adjust their private opinions to ensure that the dissonance between behavior and attitudes is resolved (Festinger, 1962). The technique of using counterattitudinal advocacy to induce dissonance, and consequently persuasion, has been shown to be effective across various health domains (Freijy & Kothe, 2013). On the other hand, expressing a viewpoint could also result in more extreme and stronger attitudes, for example, when the expressed viewpoint is in line with existing attitudes (potentially because of increased processing and elaboration; Downing, Judd, & Brauer, 1992; Eveland, 2004; Eveland & Thomson, 2006; Powell & Fazio, 1984). We therefore argue that it is likely that conversational valence of oneself is particularly important for subsequent attitude and intention change. Thus, we expected the following:

> Hypothesis 3: Conversational valence of the self more strongly influences attitudes and intentions toward binge drinking than conversational valence of the conversation partner.

The Present Study

The present study was conducted in the context of alcohol consumption. Alcohol abuse, and binge drinking in particular, are prominent public health concerns. Excessive alcohol consumption frequently results in serious accidents, fights, and harassments, and is a large cause of preventable death and morbidity (e.g., Cherpitel, 2007). Furthermore, excessive alcohol use is associated with many major disease outcomes, such as liver cancer, epilepsy, hemorrhagic stroke, and coronary heart disease (Rehm et al., 2003). Despite these detrimental effects of alcohol abuse and binge drinking, many people engage in these behaviors. Especially young people, and college students in particular, tend to do so (Kypri, Cronin, & Wright, 2005; O'Malley & Johnston, 2002; Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). Given the adverse effects of excessive alcohol consumption, these findings are particularly alarming. Research aimed at addressing and preventing this particular health problem is therefore especially called for. We intended to confront this issue by investigating how perceived and objective conversational valence, and the distinction between the participants themselves and the conversation partners, induce changes in binge drinking attitudes and intentions.

Method

Participants and Procedure

Eighty-six undergraduate students, 21 men and 65 women ($M_{age} = 22.52$, $SD_{age} = 1.67$), of the University of Amsterdam took part in a two-wave study and received credits for participation. Participants were familiar with each other and registered in dyads. Two weeks before visiting the lab, participants individually answered an online questionnaire measuring binge drinking attitude and intention (T0). At the beginning of the survey, a definition of binge drinking according to Dutch guidelines—defined as the consumption of four or more (for women) or six or more (for men) alcoholic beverages on one occasion—was given to ensure that the participants correctly understood our definition. Two weeks after the baseline assessment, participants arrived at the research lab in dyads. Given the fact that the current research was part of a larger study, one component of the procedure was not relevant for the present research. Participants were shown either an antialcohol video or no antialcohol video. Therefore, all analyses controlled for ad condition. Omitting ad condition as a factor in the analyses did not change the results.

Next, participants were brought to a room resembling a living room where they were asked to discuss the topic of alcohol and binge drinking with their dyadic partner. Participants were monitored and recorded during the conversation by a hidden camera and microphone. All participants gave permission for the use of their recordings. After talking about the topic for approximately 5 min, participants were escorted back to their individual computers where they were asked to fill out another survey. Attitude (T1) and intention (T1) were again assessed, as well as the perceived conversational valence of the participants themselves and of the conversation partners. Furthermore, the discussions were coded by four independent coders to obtain an objective measure of conversational valence.

Materials and Measures

Binge Drinking Attitude

Attitude toward refraining from binge drinking was assessed as the average score of six items (e.g., "If I would not binge drink during the next 2 weeks, this would be ...") measured on 7-point scales ranging from 1 (*very harmful*) to 7 (*very harmless*), 1 (*very negative*) to 7 (*very positive*), 1 (*very unsociable*) to 7 (*very sociable*), 1 (*very unwise*) to 7 (*very wise*), 1 (*very bad*) to 7 (*very good*), and 1 (*very unpleasant*) to 7 (*very pleasant*); $M_{T0} = 5.25$, $SD_{T0} = 1.05$, $\alpha_{T0} = .88$; $M_{T1} = 5.17$, $SD_{T1} = 0.92$, $\alpha_{T1} = .87$.

Binge Drinking Intention

Intention to refrain from binge drinking was measured as the average score of three items (i.e., "I intend to not binge drink during the next 2 weeks," "I plan to not binge drink during the next 2 weeks," and "I will try to not binge drink during the next 2 weeks") which could be answered on a 7-point scale ranging from 1 (*very unlikely*) to 7 (*very likely*); $M_{T0} = 3.86$, $SD_{T0} = 2.09$, $\alpha_{T0} = .98$; $M_{T1} = 3.63$, $SD_{T1} = 2.07$, $\alpha_{T1} = .99$.

Perceived Conversational Valence

Perceived conversational valence of the self was measured through three questions: "How negative or positive have *you* spoken during the conversation about ..." (a) "drinking alcohol," (b) 'binge drinking,'' and (c) "being drunk," which

could be answered on 7-point scales ranging from 1 (*very negative*) to 7 (*very positive*), $M = 4.31$, $SD = 1.06$, $\alpha = .75$ (Hendriks et al., 2012). Of the participants, 33% scored below midscale, indicating a negative conversational valence of the self, and 56% scored above midscale, indicating a positive conversational valence of the self. The remaining 11% scored exactly midscale (i.e., indicating a neutral valence). Perceived conversational valence of the conversation partner was measured through three questions: "How negative or positive has *your conversation partner* spoken during the conversation about . . ." (a) "drinking alcohol," (b) "binge drinking," and (c) "being drunk," which could be answered on 7-point scale ranging from 1 (*very negative*) to 7 (*very positive*), $M = 4.29$, $SD = 1.05$, $\alpha = .73$. Of the participants, 33% scored below midscale, indicating a negative conversational valence of the conversation partner, and 50% scored above midscale, indicating a positive conversational valence of the conversation partner. The remaining 17% scored exactly midscale (i.e., indicating a neutral valence).

Content Analysis

To obtain an objective measurement of conversational valence, a transcript was written for all recorded conversations. Then, four independent coders watched all videos and coded all transcripts according to a coding book especially developed for the purpose of the present study. An instruction and a training session were organized during which all coders coded the same training transcripts and during which problems could be discussed and solved. While three of the four coders agreed often, one of the four coders disagreed frequently with the other three coders. Omitting this particular coder resulted in an acceptable intercoder reliability between the three remaining coders, Krippendorff's alpha $= .71$ (Hayes & Krippendorff, 2007).

Every statement related to alcohol or binge drinking was coded, separately for the two persons in the conversation. When a statement increased the chance that the participant would consume alcohol (e.g., "I like drinking alcohol") it was coded as a positive statement about alcohol or binge drinking. When a statement decreased the chance that the participant would consume a lot of alcohol (e.g., "I hate being drunk"), it was coded as a negative statement about alcohol or binge drinking. After the coding process, objective conversational valence for each person in the conversation

was calculated by subtracting the number of negative statements from the number of positive statements. Higher scores indicated a more positive objective valence toward alcohol. An average score across the coders was calculated and was used during the analyses ($M = -1.18$, $SD = 3.37$). Of the participants, 62% made more negative than positive statements, indicating a negative conversational valence, and 33% made more positive than negative statements, indicating a positive conversational valence. The remaining 5% scored exactly midscale (i.e., indicating a neutral valence).

Data Analysis

All variables were standardized prior to the analyses. Multilevel linear mixed effects models were used to account for the dependent nature of the data (i.e., individuals nested within dyads). It must be noted that it was not possible to enter the statements from both the participants themselves and the conversation partners in the same multivariate model becausestatements from each participant in a dyad were simultaneously statements from the participant themselves, and, for the dyad partner, statements from the conversation partner (i.e., this would result in using the same data twice and thus inflate our results). Therefore, three univariate models were tested using conversational valence measures from the participants themselves and three univariate models were tested using conversational valence measures from the conversation partners. These three analyses tested the relation between objective and perceived conversational valence, between perceived conversational valence and binge drinking attitudes and intentions, and between objective conversational valence and binge drinking attitudes and intentions. Table 1 shows the correlations among the main study variables.

Results

The Relation Between Perceived and Objective Conversational Valence

A significant relation between perceived and objective conversational valence of the self was revealed, ($\beta = .41$, $p < .001$). When focusing on the conversation partner, a significant relation between perceived and objective conversational valence of the conversation partner ($\beta = .52$, $p < .001$) was also found. When the content analysis showed

Table 1. Correlations among main variables

	1	2	3	4	5	6	7	8
1. Perceived valence self	—							
2. Perceived valence conversation partner	.660**	—						
3. Objective valence self	.413**	.390**	—					
4. Objective valence conversation partner	.418**	.522**	.580**	—				
5. Attitude T0	−.376**	−.294**	−.218*	−.101	—			
6. Attitude T1	−.456**	−.409**	−.274*	−.194	.601**	—		
7. Intention T0	−.241*	−.243*	−.190	−.157	.601**	.525**	—	
8. Intention T1	−.423**	−.344**	−.285**	−.226*	.446**	.700**	.623**	—

*$p < .05$, **$p < .01$.

that more negative than positive statements were made by the participants (conversation partners), participants also perceived that they (their conversation partners) had spoken more negatively about alcohol and binge drinking. Thus, objective and perceived conversational valence were positively related, thereby supporting Hypothesis 1.

The Influence of Perceived and Objective Valence of the Self and Conversation Partner

Perceived Valence

A significant effect of perceived conversational valence of the self on attitude at T1 ($\beta = -.24$, $p = .011$) and intention at T1 ($\beta = -.26$, $p = .002$) toward refraining from binge drinking was revealed, controlling respectively for attitude and intention at T0. When participants declared to have spoken negatively about alcohol, their attitudes toward refraining from binge drinking became more positive and their intention to refrain from binge drinking increased. Alternately, when participants declared to have spoken positively about alcohol, their attitudes toward refraining from binge drinking became more negative and their intention to refrain from binge drinking decreased. Analyses with perceived valence of the conversation partner as predictor showed the same pattern of results for attitude at T1 ($\beta = -.22$, $p = .013$), controlling for attitude at T0. However, no significant relation at the $p < .05$ level was found between perceived valence of the conversation partner and intention at T1 ($\beta = -.16$, $p = .060$), controlling for intention at T0.

Objective Valence

No significant effect of objective conversational valence of the self on attitude T1 ($\beta = -.16$, $p = .088$) or intention T1 ($\beta = -.17$, $p = .051$) toward binge drinking was found at the $p < .05$ level, controlling respectively for attitude and intention at T0. This result entailed that when participants made more negative than positive statements about alcohol, their attitudes and intentions toward refraining from binge drinking did not significantly change as a function of the uttered statements. Objective conversational valence of the conversation partner also had no effects on attitude ($\beta = -.12$, $p = .167$) or intention at T1 ($\beta = -.11$, $p = .206$), controlling respectively for attitude and intention at T0.

Concluding, in line with Hypothesis 2, whereas perceived conversational valence was significantly related to changes in attitudes and intentions, objective conversational valence was not. Also, although both the conversational valence of the self and the conversation partner had no influence when looking at objective valence, the finding that perceived conversational valence of the self elicited changes in binge drinking intentions, whereas perceived conversational valence of the conversation partner had no significant effects on intention change, partly supported Hypothesis 3.

Discussion

The present study was the first to investigate the relation between perceived and objective conversational valence, the changes in binge drinking attitudes and intentions as elicited

by these two different ways of looking at conversational valence, and the influence of the distinction between the self versus the conversation partner. Three main conclusions can be drawn. First, perceived and objective conversational valence are positively related. Second, perceived conversational valence predicts attitude and intention change whereas objective conversational valence is unrelated to changes in these behavioral determinants. Third, although both perceived conversational valence of the self and conversation partner influence binge drinking attitudes, only perceived conversational valence of the self—and not of the conversation partner—significantly influences binge drinking intentions.

The first main conclusion concerns the association between perceived and objective conversational valence. As argued, it is important to investigate the relations between psychological self-reported measures and objective ones, because measures based on self-report and self-perception—although they provide a unique insight into people's perceptions and knowledge—can suffer from introspection and recall issues and may therefore not always correspond with reality. The results showed that the perceived conversational valence measure, as used by other researchers (Dunlop et al., 2010; Hendriks et al., 2012), was positively associated with the more objectively coded conversational valence measure, thereby rendering its use appropriate for use in future research. The medium to large correlations (Cohen, 1992) between objective and perceived conversational valence show that young people are relatively accurate in the description and recall of the objective valence of their discussions about alcohol. Because measures based on self-report and self-perception are also more easy and cheaper to obtain, measuring perceived conversational valence instead of a more objective conversational valence seems an appropriate alternative.

The second main conclusion is related to the changes in binge drinking attitudes and intentions as elicited by perceived and objective conversational valence. The results indicated that when participants perceived that they had spoken negatively (positively) about alcohol, their attitudes and intentions became more positive (negative) toward refraining from binge drinking. This finding is in line with other research showing that perceived conversational valence influences health determinants (e.g., Dunlop et al., 2010; Hendriks et al., 2012; Van den Putte et al., 2010). We found substantial effects of the perceived valence of the conversation on changes in binge drinking attitudes and intentions (i.e., beta weights of $-.24$ and $-.26$), thereby further emphasizing the importance of interpersonal communication for health determinants (see also Real & Rimal, 2007; Southwell & Yzer, 2007; Van den Putte et al., 2011). In contrast with the significant effects of perceived conversational valence, objective conversational valence did not induce significant changes in binge drinking attitudes and intentions at the conventional $p < .05$ level. It should be noted, however, that the relation between objective conversational valence of the self and intention almost reached significance ($p = .051$). However, the strength of this relation (as reflected by β) was stronger for the perceived valence measure than for

the objective valence measure, thereby again emphasizing the relative importance of perceived conversational valence measures. However, given these near significance levels, it is important that future research investigates how objective measures relate to health determinants so that the relative effects of objective and perceived measures can be understood with more certainty.

The supremacy of perceived conversational valence as shown in this study is in line with self-perception research and is in agreement with our expectation that the self-perception, subjective experience, and recall of the valence of the conversation is more important than the objectively assessed valence (e.g., Bem, 1965; Wilson & Dunn, 2004). In line with the persuasive arguments theory, positing that the influence of conversations depends on whether discussants remember negative or positive arguments (Vinokur & Burnstein, 1974), it seems that after talking about alcohol, our participants' attitudes and intentions mostly changed as a function of how they perceived their conversation as opposed to how the conversation more objectively went.

These two main findings together hold potentially important implications for health research and health promotion interventions. Given the relevance of interpersonal communication—and conversational valence in particular—for the determinants of health behavior, the present findings further our understanding of effective health promotion interventions and show that interpersonal communication is a potentially useful tool to induce more healthy alcohol consumption intentions and attitudes. By designing interventions that stimulate conversations that are negative about unhealthy conduct (for example by organizing discussion groups in which the negative aspects of binge drinking are discussed; Janis & King, 1954) more healthy attitudes and intentions can be evoked. This importance of interpersonal communication is particularly relevant for the development of successful interventions aimed at reducing binge drinking prevalence rates, because college students—who especially engage in binge drinking—are particularly prone to peer influence and are often present in social settings where the topic of alcohol consumption is discussed (Bot, Engels, Knibbe, & Meeus, 2005; Dorsey, Scherer, & Real, 1999). Furthermore, we showed that it is particularly important to measure how people perceive their discussions. It seems that the simple act of asking a person to reflect on a previous health conversation not only results in a relatively accurate description of the conversation that occurred but the recall of the conversation also predicts subsequent health attitude and intention change.

The fact that the objective and perceived conversation measures were positively related and yet had different effects may seem strange. However, although the correlation between both measures was medium to large, we found no perfect coefficients of one (i.e., the standardized regression weights varied between .41 and .52). Moreover, perceived conversational valence was not always in line with objectively coded valence. Although it was objectively coded that 62% of the participants spoke negatively about alcohol, this was only perceived as such by 33% of the respondents.

Furthermore, 56% of the participants perceived their own conversational valence as positive, while only 33% of the participants scored a positive objectively coded valence. We propose that a potential explanation for this discrepancy between perceived and objective valence might be that people more easily recall positive statements about alcohol than negative ones, resulting in a more positive perceived valence as compared with objective valence. This is in line with research showing that participants in conversations process conversations differently as compared with outsiders observing the discussion (Stafford, Waldron, & Infield, 1989). Because our results indicate that a positive perceived conversational valence elicits unhealthy binge drinking attitudes and intentions, it is worrisome that the majority of our participants perceived their conversation as positive about alcohol. Encouraging interpersonal communication seems to be a two-edged sword. For some persons interpersonal communication can induce desirable effects when perceived conversational valence is negative about unhealthy conduct, for other persons it can produce unwanted effects when perceived conversational valence is positive about unhealthy behaviors. Hence, health interventions promoting interpersonal communication should take conversational valence into account to prevent undesired effects.

Our third main conclusion was that although both perceived conversational valence of the self and of the conversation partner influenced binge drinking attitudes, only perceived conversational valence of the self—and not of the conversation partner—significantly influenced binge drinking intentions. This superiority of conversational valence of the self was also suggested when looking at the objective valence measures. Although no overall significant effects (at $p < .05$) were visible on binge drinking determinants, objectively coded statements from the participants themselves marginally significantly (at $p < .10$) influenced binge drinking attitudes and intentions. Statements from the conversation partner however, had no significant effects at all on attitudes or intentions (all $p > .10$). Hereby, our study provides a first tentative insight into the relative contribution of the conversation partner and the potential role of self-persuasion. Our results suggest that during conversations about alcohol, people are more influenced by what they say themselves as compared with what their conversation partner is saying. These results support the idea of self-generated persuasion and the saying-is-believing effect (Briñol, McCaslin, & Petty, 2012; Higgins, 1999; Pratkanis & Aronson, 2001) and are in line with the classical study by Janis and King (1954) showing that when people give a speech they convince themselves more than when they listen to the same speech delivered by others (see also Festinger, 1962). The fact that perceived conversational valence of the self—as opposed to perceived conversational valence of the conversation partner—was especially important for binge drinking intentions, implicates that health promotion interventions should not only aim to stimulate discussions that are negative about alcohol, but should also promote an active participation in the discussion, preferably by stimulating discussants to actively voice opinions in line with the goal of the intervention.

It is meaningful to regard the role of the conversation partner in more detail. Although perceived conversational valence of the conversation partner was not significantly related to participants' changes in binge drinking intentions, this does not mean that the conversation partner had no influence at all. That is, the perceived valence of the conversation partner did influence changes in participants' attitudes ($\beta = -.22$, $p = .013$). Some effect of the conversation partner thus exists in the present study. Moreover, it is possible that the effect of the conversation partner may be larger depending on several conditions, such as the degree of friendship between conversation partners, or the level of agreement between them (e.g., Sherif & Hovland, 1961). This is an interesting and important venue for future research.

Limitations and Conclusions

The present research has a few limitations. First, although we found a positive association between perceived and objective conversational valence, the association between these two measures was not a perfect coefficient of one. As mentioned earlier, this discrepancy between objective and perceived valence could be due to the fact that participants perceived their conversation as more positive about alcohol than it was objectively rated. Although relatively moderate and even weak correlations between objective and self-reported variables are common (e.g., Horner, Harvey, & Denier, 1999; Otten, Littenberg, & Harvey-Berino, 2010), this means that there is some unexplained variance that predicts self-reported conversational valence. Future research should aim to explore which other concepts underlie and predict self-reported conversational valence.

Second, we compared objective with perceived conversational valence in terms of subsequent changes in self-reported attitudes and intentions. It is possible that more objective outcome measures (e.g., actual behaviors) or less explicit ones (e.g., implicit attitudes) are more weakly related to perceived conversational valence and more strongly related to objective conversational valence (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We encourage future studies to explore these relations in more detail. Third, we measured perceived conversational valence shortly after the conversation occurred. It is possible that the association between this measure and the objective measurement becomes less strong when more time elapses, for example due to difficulties with remembering the conversation (Stafford, Burggraf, & Sharkey, 1987). Further research is needed to explore the relation between perceived and objective conversational valence measures across a greater time span.

Third, the current research shows that perceived conversational valence of the participants themselves influences subsequent binge drinking determinants while controlling for these determinants at baseline, thereby showing that perceived conversational valence induces changes in binge drinking determinants. However, it is also possible that binge drinking attitudes and intentions influence how negatively or positively people discuss health topics.

For example, David, Cappella, and Fishbein (2006) showed that persons at a high risk of using marijuana talk more in favor of drug use than those at a low risk. Thus, conversational valence can influence the determinants of health behaviors, and determinants of health behaviors can influence how positively people talk about the issue. Further investigation of such feedback loops or spiraling effects can shed light on how the relation between conversational valence and health determinants develops over time.

Fourth, another issue that may be relevant to the current findings is social desirability. Although the measures used in the present study were based on previous research (e.g., Norman & Conner, 2006) and such measures have been shown to be related to behaviors (e.g., Del Boca & Darkes, 2003; Marcoux & Shope, 1997), it is possible that participants did not answer truthfully about their binge drink attitudes and intentions. However, assuming that potential social desirability effects can be found in both waves of our study, we think that this does not disturb our conclusions because we controlled for attitudes and intentions at baseline and thus focused on changes in binge drinking determinants and not on their value per se.

In closing, the present study provides some valuable insights. Although objective and perceived conversational valence about health topics are positively related, especially perceived conversational valence influences attitude and intention change. Furthermore, whereas the perceived conversational valence of people themselves significantly affects changes in peoples' own health intentions, the conversational valence of their conversation partners does not. Thus, to induce more healthy attitudes and intentions, health promotion attempts should focus on stimulating health-related conversations in which discussants actively participate and that are perceived as negative about the unhealthy behavior.

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