Summary
Unhealthy behaviors, such as smoking or alcohol abuse, are commonplace (e.g., Mokdad et al., 2004). Health campaigns aim to reduce such unhealthy conduct; however, they are not always successful in doing so. Although some studies report small positive effects of health campaigns, other studies indicate that health campaigns have no impact or even result in boomerang effects (Hornik et al., 2008; Noar, 2006). In this dissertation, it is argued that these varying health campaign effects can be better understood, and potentially improved, if interpersonal communication is taken into account. People can discuss health topics or the content of health campaigns with each other, and these discussions can influence the impact of health campaigns (e.g., Real & Rimal, 2007). The idea that health campaigns and interpersonal communication can interact was also stressed by Southwell and Yzer (2007), who argued that interpersonal communication can play three roles within health campaign effects. First, whether people talk (i.e., conversational occurrence) about health topics can be an outcome of health campaigns, increasing the distribution of the message (e.g., Katz, 1957). Second, these health campaign-induced discussions can influence persuasion outcomes, thereby serving a mediating role (e.g., Van den Putte et al., 2011). Third, conversational occurrence can alter, undermine, or amplify health campaign effects, thereby playing a moderating role (e.g., Southwell, 2005). Furthermore, a few studies have shown that in addition to whether people discuss health topics, how negatively or positively people talk about health topics (i.e., conversational valence) especially influences health behaviors and health campaign effects (e.g., Dunlop et al., 2010). However, although the influence of conversational occurrence has received a considerable amount of empirical attention, the concept of conversational valence remains relatively understudied.

The overall aim of this dissertation is to further investigate how health campaigns, interpersonal communication, and the interplay between these two factors influence predictors of health behaviors. More specifically, this dissertation aims to address four gaps in the literature. The first aim is to provide an integrative understanding of the interplay between health campaign exposure and conversational occurrence by examining whether conversational occurrence moderates health campaign effects and whether health campaigns moderate the effects of conversational occurrence (Chapter 2). The second aim is to explore whether health campaign exposure influences conversational valence and subsequent health determinants (Chapter 3). The third aim is to investigate whether message-induced emotions influence conversational valence and subsequent determinants of health behavior (Chapter 4). The fourth aim is to explore whether the perception of how negatively or positively people themselves (versus conversation partners) talk about health issues is especially important for health
determinants (Chapter 5). These aims are addressed in the context of alcohol abuse and binge drinking because these are prevalent health problems associated with detrimental individual and societal consequences (Cherpitel, 2007). Furthermore, alcohol abuse and binge drinking are recurring conversation topics (Dorsey et al., 1999), increasing the importance of investigating interpersonal communication in this health context.

Chapter 2: The interplay between conversational occurrence and health campaigns

Although research has shown that conversational occurrence can moderate health campaign effects (e.g., Southwell, 2005), the other way around has not yet been explored. However, it is also relevant to consider the role of health campaigns for conversational occurrence effects, given the fact that interpersonal communication has been shown to be a more important predictor of health behaviors than health campaign exposure (e.g., Korhonen et al., 1998). Chapter 2 addresses this research question through a two-wave experiment. Two weeks before the lab experiment, baseline binge drinking intentions were assessed. During the lab experiment, the participants were allocated to the conditions of a 2 (anti-alcohol message versus no anti-alcohol message) x 2 (alcohol conversation versus control conversation) between-subjects design. After viewing an anti-alcohol message (or not), the participants engaged in a dyadic conversation about alcohol and binge drinking (or about a control topic). Then, the participants’ binge drinking intentions were again assessed. The results showed that the effects of exposure to an anti-alcohol message on changes in binge drinking intentions did not depend on whether the topic was discussed. Thus, conversational occurrence did not moderate health campaign effects. In contrast, the findings revealed that the effects of talking about alcohol on changes in binge drinking intentions were moderated by anti-alcohol message exposure. When participants talked about alcohol without anti-alcohol message exposure, they intended to binge drink more compared to participants who talked about a control topic. This undesired effect, in terms of health promotion, disappeared when participants viewed an anti-alcohol message before engaging in a discussion about alcohol. A potential explanation may be that health campaigns prompt people to talk negatively about unhealthy behaviors, and these conversations can subsequently reduce unhealthy behavioral determinants. This explanation is tested in Chapter 3.
Chapter 3: The influence of health campaign exposure on conversational valence and health intentions

Thus, health campaign exposure may influence conversational valence. However, given the limited research on the potential predictors of conversational valence, this possibility has not yet been tested. The consequences of conversational valence, however, have been addressed by a few studies. These studies have shown that conversational valence influences predictors of health behaviors (Dunlop et al., 2010). Discussions that are positive toward healthy behaviors or negative toward unhealthy behaviors result in desirable and healthy attitudes, intentions, and behaviors. However, when people speak negatively about healthy behaviors or positively about unhealthy conduct, this results in unhealthier determinants of health behaviors. Despite these studies demonstrating the important consequences of conversational valence, it is not yet known whether conversational valence can be predicted by health campaign exposure. In this dissertation, it is proposed that health campaigns can prompt a more negative conversational valence about unhealthy behaviors because many health messages aim to reduce unhealthy conduct by stressing the negative consequences of unhealthy behavior.

This idea is tested in Chapter 3 in a two-wave study. At baseline, binge drinking intentions were measured. Two weeks later, participants were exposed to either an anti-alcohol message or no anti-alcohol message. Then, all participants were asked to talk in dyads about alcohol and binge drinking. After the conversation, participants reported how negatively or positively they had spoken about alcohol. Furthermore, binge drinking intentions were again reported. The findings showed that health campaign exposure influenced conversational valence. When participants had seen an anti-alcohol message, they talked more negatively about alcohol and binge drinking compared to participants who had not seen an anti-alcohol message. Subsequently, a negative conversational valence decreased the intentions to binge drink. In fact, a significant indirect relationship of anti-alcohol message exposure on binge drinking intentions through conversational valence was revealed. Thus, exposure to a health message versus no health message elicits a more negative conversational valence toward unhealthy behavior. This result raises the question of which types of health messages are especially likely to elicit a desired conversational valence because health messages may differ in the persuasive strategy employed. This question is addressed in Chapter 4.
Chapter 4: The influence of message-induced emotions on conversational valence and health determinants

Little is known about the influence of message characteristics on conversational valence. However, some studies have focused on which types of messages predict whether people talk about the topic of a message. These studies show that emotions play an important role herein. Messages that elicit feelings of fear, amusement, or disgust have been shown to prompt discussions, whereas message-induced feelings of sadness, guilt, or contentment reduce conversations (e.g., Berger, 2011; Brennan et al., 2010). Whether emotions of fear, disgust, and humor, which are often used in health campaigns (Cohen et al., 2007), also influence the valence of discussions is not yet known. However, it is possible that, for instance, fear increases the accessibility of fear-related concepts in working memory (Goldstein et al., 2004), and these accessible concepts can subsequently serve as a relevant conversational anchor (Strack & Mussweiler, 1997) resulting in a more negative conversational valence. Therefore, Chapter 4 investigates whether message-induced emotions affect conversational valence and subsequent persuasion outcomes.

At baseline, binge drinking attitudes, subjective norms, perceived behavioral control, intentions, and behaviors were assessed. Two weeks later, participants were exposed to one of the emotional anti-alcohol appeals (i.e., a fear, disgust, humor, or informational appeal). Then, the participants were asked to talk about alcohol and binge drinking in dyads. After the conversation, the participants reported how negatively or positively they had spoken about alcohol. Furthermore, the emotions elicited by the ads and binge drinking variables were measured. Three main findings were revealed. First, the emotion of fear induced a more negative conversational valence about alcohol, whereas disgust and humor emotions did not influence conversational valence. Second, fear was elicited most strongly by a disgusting ad and least strongly by a humorous appeal. Third, a more negative conversational valence was related to more negative binge drinking attitudes, subjective norms, perceived behavioral control, and intentions and a decrease in binge drinking behaviors. Thus, it is important to consider the emotional characteristics of health messages and the role of conversational valence when investigating health campaign effects. As shown in Chapters 3 and 4, conversational valence influences determinants of health behaviors. Given the few studies on the predictors and consequences of conversational valence, little is known about the process through which conversational valence influences health determinants. Chapter 5 addresses this issue and explores the role of self-
perception in the process through which conversational valence influences the predictors of health behaviors.

**Chapter 5: The role of self-perception in conversational valence effects**

A potential mechanism by which conversational valence may influence health determinants is related to self-perception and self-persuasion (e.g., Bem, 1965). By perceiving how negatively or positively oneself speaks about a health topic, one may alter one’s own attitudes accordingly. In line with the importance of self-perception, research has demonstrated the relevance of self-persuasion (e.g., when persons give a speech, they convince themselves more than when they listen to the same speech delivered by others; Janis & King, 1954). Therefore, it seems plausible that one’s own conversational valence is related more strongly to health attitudes and intentions than the conversational valence of one’s conversation partner. Chapter 5 addresses (1) whether perceived conversational valence has a stronger impact on health attitudes and intentions than a more objectively determined conversational valence and (2) whether the distinction between the self and the conversation partner influences the effects of conversational valence.

After a baseline measure of binge drinking attitudes and intentions two weeks in advance, the participants were asked to discuss the topic of alcohol and binge drinking for five minutes in the lab. These conversations were videotaped and coded by independent coders to obtain an objective measure of conversational valence. Then, perceived conversational valence (i.e., of the self and of the conversation partner), binge drinking attitudes, and binge drinking intentions were assessed. The results revealed that although objective and perceived conversational valence were positively related, only perceived conversational valence influenced binge drinking determinants. Furthermore, only the perceived conversational valence of the participants themselves, and not of their conversation partners, affected binge drinking intentions. Thus, the perception of how negatively or positively oneself speaks about health topics is especially important for changes in health attitudes and intentions.

**Findings and suggestions for future research**

This dissertation provides several new insights. First, health campaign exposure can moderate the effects of conversational occurrence on health determinants. Thereby a more integrative understanding of the interplay between health campaign exposure and interpersonal communication is provided. Second,
Summary

Conversational valence has a substantial influence on health-related attitudes, subjective norms, perceived behavioral control, intentions, and behaviors, suggesting that conversational valence, in addition to conversational occurrence, should be considered more often. Third, conversational valence can be influenced by exposure to a health campaign, and specifically by exposure to a fear-inducing health message. Thereby, it is shown that health campaigns can have subtle and indirect effects by influencing conversational valence and, in turn, subsequent determinants of health behaviors. Such indirect effects should be considered more often when health campaign effects are evaluated. Moreover, the relevance of the emotion of fear for conversational valence, and not the emotions of humor or disgust, shows that although multiple emotions affect conversational occurrence, only a few emotions influence conversational valence. Fourth, especially the perception of one's own conversational valence influences intentions to behave in an unhealthy way, and not a more objective measure of conversational valence or the valence of the conversation partner. Thereby, this dissertation shows the relevance of self-perception and self-persuasion in the context of health conversations and suggests that future research should pay special attention to people's perceptions of interpersonal communication processes.

Several research suggestions can be made based on this dissertation, which are elaborated upon in Chapter 6. A few of these research suggestions are highlighted here. First, given that our findings (i.e., that health campaign exposure moderates conversational occurrence effects and not vice versa) partly contrast with existing research, more attention should be paid to the issue of under which circumstances conversational occurrence moderates health campaign effects and when health campaign exposure moderates conversational occurrence effects. Second, whether arousal accounts for the different effects of fear versus disgust and humor on conversational valence should be investigated. Third, relevant moderators of self-perception accuracy (such as self-awareness and self-attention) should be assessed in the context of health conversations. Fourth, the findings of this dissertation should be replicated with group sizes other than dyads (e.g., large groups), in other settings (e.g., online communication), with different target groups (e.g., adolescents), with different behaviors (e.g., fruit intake), and using different health-related messages (e.g., pro-alcohol advertising).
Summary

Practical implications

Based on this dissertation, several practical suggestions for health promotion can be offered. First, health campaign planners should aim to elicit conversations that are negative about unhealthy behaviors and positive about healthy behaviors. Conversational occurrence can be stimulated by using messages that induce certain emotions or include tropes or by explicitly asking audiences to converse about the topic. A desired conversational valence can be stimulated by using fear-inducing messages (e.g., by using a disgusting message) or by stimulating persons who already speak in a desired valence to talk with others. It is also important to keep in mind that the perception of one’s own conversational valence particularly influences health determinants. Thus, active participation in discussions and correct self-perceptions of a desirable conversational valence should be stimulated.

Conclusion

Inspired by the varying degrees of success of health campaigns, this dissertation shows that interpersonal communication plays a vital role for the prediction of health behaviors and health campaign effects. Especially the perception of how negatively or positively oneself speaks about health issues influences predictors of health behaviors. Thus, talking about health topics matters. Health researchers should consider the influence of interpersonal health communication when they investigate health behaviors and health campaign effects. Moreover, health practitioners should attempt to incorporate ways to stimulate desirable interpersonal communication within public health interventions.