

Common Bond and Common Identity Groups on the Internet: Attachment and Normative Behavior in On-Topic and Off-Topic Chats

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The present research is based on D. A. Prentice, D. T. Miller, and J. R. Lightdale's (1994) distinction between common bond groups (formed by attachment between group members) and common identity groups (formed by attachment to the group as a whole). Study 1 showed the existence of both types of groups on the Internet: On-topic chats can be classified as common identity groups, and off-topic chats as common bond groups. In Study 2 the adherence to group norms as a behavioral consequence of the membership in both types of groups was analyzed. Members of common identity groups adhered more to the group norms of paralinguistic symbols than did members of common bond groups. The implications for the development and persistence of groups on the Internet are discussed.

Since the development of the Internet, and in particular the World Wide Web, a wide variety of groups have come into existence, including Web and Internet Relay Chat (IRC), news-groups, multiuser dimensions (MUDs), and, more recently, commercial virtual communities. Unfortunately, there exists only a small body of research that addresses the social psychological consequences of the Internet.

The speculations about the development of Internet-based groups and their impact on individuals and traditional groups are diverse and numerous. Some view these fast growing virtual chat cliques, online games, or computer-based marketplaces as a new opportunity, particularly for stigmatized people, to take a more active part in social life (Rheingold, 1993; for empirical evidence, see Cummings, Sproull, & Kiesler, 2002; McKenna & Bargh, 1998). Others expect participators to replace ties to the traditional community with ties to Internet communities (Wellman & Gulia, 1999). They also

question the persistence of virtual groups or expect a fragmentation into highly diversified groups in which participators join and leave in quick succession, pursuing individual interests but contravening collective goals (Fernback & Thompson, 1995; Van Alstyne & Brynjolfsson, 1996). This huge variation of expectancies concerning the persistence of Internet-based groups and the behavior of their members, on the one hand, and the small number of empirical investigations, on the other hand, underlines the importance of addressing this topic in research.

The positions just described are an attempt to sum up the effects of the Internet on groups' and individuals' behavior. However, as the Internet cannot be adequately described as an invariant situation, this approach is too simplified. It might be supposed that different groups on the Internet create different situations for those interacting within these groups. Thus, research has to differentiate between a variety of situations that are conceivable on the Internet, for example, different types of groups that constitute different social settings.

As a step toward a more profound knowledge about Internet groups, this article aims to clarify the relation between different types of groups, on the one hand, and the attachment of the group members to these groups and their conformity to group norms, on the other hand. The conformity to the group norms is addressed because (a) it is an indicator for the members'

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commitment to the group (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and (b) highly committed members will maintain their group membership (Ellemers, Spears, & Doosje, 1997).

Group Typologies

In recent years different classifications of social groups have been developed (Deaux, Reid, Mizrahi, & Ethier, 1995; Lickel et al., 2000; Prentice et al., 1994). Deaux et al. (1995) and Lickel et al. (2000) focused on people's *perception* of the groups. Unlike these authors, Prentice et al. (1994) described a classification of groups in terms of the *attachment* of their members. Therefore, this approach is most promising for the analyses of the attachment to groups on the Internet.

In distinguishing between common bond and common identity groups, Prentice et al. (1994) used the two dominant concepts to describe attachment to a group (see also Brewer & Gardner, 1996): The interpersonal conception defines group cohesion as "that group property which is inferred from the number and strength of mutual positive attitudes among members of a group" (Lott, 1961, p. 279). The second approach is consistent with social identity theory (Tajfel & Turner, 1979, 1986) and self-categorization theory (SCT; Turner et al., 1987). Following these theories, the attachment to a group is independent of the interpersonal attachment between single group members (Hogg & Turner, 1985). A group can be tied together by each group members' identification with the group as a whole, that is, the attraction of the group on a "supra-individual level" (Postmes & Spears, 2000, p. 69).

In *common bond groups*, the bonds between group members primarily make up the attachment to the group. These groups can be characterized by the interpersonal conception of group cohesion, where the attraction of the group for the individuals does not play a role; rather, what is important is the attraction of the individuals to one another (personal attraction). An example is a group of friends. Research on group cohesion has long followed this interpersonal conception (see Hogg, 1992, for a review). From the results of this line of research, Prentice et al. (1994) concluded, "In these groups, the strength of group attachment depends critically on the extent to which one knows, likes,

and feels similar to other members of the group, as well as the extent to which the group as a whole is seen as homogeneous" (p. 485).

In *common identity groups*, the attachment to the group is dependent foremost on the identification with the group as a whole, its goal, and its purpose. The attachment to the group should be more or less independent from the attractiveness of the individual group members, whereas the attraction of the group as a whole, its goals, and its purpose should be much more important for the attachment to the group. This prediction about common identity groups is consistent with the social identity approach. An example of this type of group is a sports team: The common goal of the group members and the purpose of the group is much more important than the perceived interpersonal attraction between the single players. The attachment to the group as a whole should depend on "one's commitment to the identity of the group" (Prentice et al., 1994, p. 485).

The results of two studies by Prentice et al. (1994) support the significance of the distinction between common bond groups and common identity groups. The authors a priori categorized groups "on the basis of their primary function: Groups that serve to build friendships were categorized as common bond groups; groups that are organized around a common interest or activity were considered common identity groups" (Prentice et al., 1994, p. 488). Members of common bond groups described their group members as more personally attractive and described themselves as less identified with their groups than did members of common identity groups. Additionally, identification with the groups showed higher correlations with member attachment, perceived similarity of other group members, perceived value of homogeneity, and perceived value of similarity and knowledge about group members in common bond groups than in common identity groups. None of the considered predictors showed a higher correlation with social identification in common identity than in common bond groups. A potential predictor of the attachment to common identity groups might be deduced from early definitions of group cohesion. Besides the attraction of the group members, which is mainly important for common bond groups, according to Festinger, Schachter, and Back

(1950), the attraction of the group as a whole provides the basis for the cohesion of a group.

Prentice et al. (1994) “expect common identity groups to show greater continuity over time and greater stability in the face of changes of membership” (p. 491). This is mainly because a common identity group does not lose its attraction after the dropout of prominent group members. At the same time, a collective identity fosters the participation in group activities, for example, in collective action (Kelly, 1993; Simon et al., 1998). Additionally, highly identified group members leave a group less often (i.e., show social mobility; Ellemers et al., 1997; Mummendey, Kessler, Klink, & Mielke, 1999). Thus, the existence of common identity groups on the Internet would be a cue for collective action and the persistence of Internet based groups.

Postmes and Spears (2000) provided empirical support for the relevance of the common bond–common identity distinction for Internet groups. In an experiment, they manipulated group type (common bond vs. common identity) and one of the most important properties of communication on the Internet: the anonymity of the members within a group. The groups of three used computer-mediated communication (CMC). The social information processing approach (Walther, 1992) argues that under conditions of anonymity, impressions are formed slower, because visual information about the person and nonverbal communication are not available. In line with this prediction, members of common bond groups felt more able to form an impression of their group members and also showed more attitude change after the discussion in the nonanonymous condition. In contrast, the social identity model of deindividuation effects (SIDE; Reicher, Spears, & Postmes, 1995; Postmes, Spears, & Lea, 2002) predicts that group members with a salient social identity will show more attitude change toward the group norm the higher the anonymity is within the group. In line with SIDE’s predictions, members of common identity groups showed higher attitude change in the anonymous condition and even reported having a better impression of their group. The interaction effect of group type and anonymity on the attitude change was mediated by the feeling of being able to form an impression of the other group members. These results show that depending on

the type of group, the particular characteristics of the CMC have a varying impact on attitudes.

Overview

The two studies reported in this article sought to show that common bond and common identity groups based on CMC exist on the Internet. In Study 1, I surveyed members of IRCs to replicate the distinction between common bond and common identity groups for Internet-based groups. Additionally, I examined whether social identification in common identity groups is in fact enhanced by group attraction. In Study 2 I aimed to explore further the *consequences* of the membership in both types of groups. Until now, research addressing the distinction between common bond and common identity groups has focused on the effects of the group membership on attitudes toward the groups and their members (Prentice et al., 1994) or toward value laden topics (Postmes & Spears, 2000). Beyond these cognitive consequences, Study 2 addresses the effects of group type on group members’ verbal behavior, in this case, their adherence to paralinguistic symbols idiosyncratic to their group. The communication of several IRCs was logged (recorded) and analyzed for differences in group members’ adherence to these group norms.

Study 1

IRC’s are text-based communication platforms that can be joined from a computer that is connected to the Internet and on which special software (a so-called IRC client) is installed (for a detailed description of technical details, see Oikarinen, 1997). With this equipment, one can open a new channel or take part in discussions on existing channels. The individual who opens a channel (the operator) may decide whether this channel is open to the public or is private (i.e., available only to people invited by her or him). Besides the privacy–publicity of a channel, there is one other striking characteristic: whether the channel was established to discuss a special topic (an on-topic channel) or as a means to bring people together (an off-topic channel). *On-topic channels* are formed to discuss a single topic that might range anywhere from computer-related themes to literature or travel. Thus, these channels have a fixed topic,

and it is expected that all communication on these channels will be on the particular theme. On some channels, if commenting becomes too off-topic, a chatter may even be banned from the channel (see Williams et al., 2002). Taken together, on-topic channels create groups around a common interest or activity. Thus, they conceptually fit the coding rule for common identity groups, used by Prentice et al. (1994). The attachment to an on-topic channel is most likely to be based on the topic that is shared by all channel members, because personal information may not be communicated. Therefore, interpersonal relations are unlikely to be built. *Off-topic channels* are founded as a virtual room to get to know people or to meet them again. These channels do not have a fixed topic. They constitute themselves around the chatters in the channel, and chatters mainly develop interpersonal relations because there is no common binding feature except the channel name. Therefore, off-topic chat channels seem best considered as common bond groups.

Following this line of argumentation, members of on-topic channels should show higher identification with the channel, should perceive a higher group attraction of the channel as a whole, and should perceive lower attraction to the members of the channel as compared with members of off-topic chats. Additionally, it was expected that in on-topic channels, social identification should be more closely related to group attraction than to personal attraction, as the group is centered on a common purpose or goal that induces attendance in the group. However, in off-topic channels, social identification should be more closely related to personal attraction than to group attraction, as the group is formed around the individual group members.

Method

Participants. Ninety-four participants were recruited from German public on-topic and off-topic IRC channels. Forty-five were between 18 and 24 years old, 44 between 25 and 34, and 5 were 35 or older.¹ Fifteen of the participants had attended high school or taken part in job training, 53 were university or college students, 17 were employees, and 9 were self-employed.

Procedure. The experimenter, using his first name as a nickname, entered German IRC

channels that were ranked either as one of the seven most busy on-topic chats or as one of the seven most busy off-topic chats by www.ircchat.de. Chatters who were not involved in a discussion were asked to complete a short questionnaire about chats that was part of a research project of the University of Göttingen. If they agreed to participate, a Web address (a URL) was sent to them privately. This address led to a Web page that was not linked by any other page. Thus, only participants who obtained the address from the experimenter could reach this page. The URL was sent to 137 chatters, 94 of whom completed the questionnaire, yielding a response rate of 69%.

The first page instructed participants to answer all of the questions on the following page in an open manner; after clicking on the link, the participant received the questionnaire. The first question asked for the participant's favorite chat channel. On the basis of this answer, participants were categorized as members of either on-topic channels or off-topic channels. On-topic channels were defined as those in which the title fits the topic of the conversation. Channels without a fixed topic were categorized as off-topic channels. Two coders categorized the channels independently and agreed in all cases. For example, on #germany.de people do not mainly talk about Germany; therefore, it is an off-topic channel. However, the main topic on #linux.de is the famous operation system; thus, it is an on-topic channel. According to this distinction, 44 participants were categorized as members of off-topic chats and 50 participants were categorized as members of on-topic chats.

Another 19 questions assessed participants' relation to their favorite channel and its members (personal attraction, group attraction, and social identification). Afterward, participants were asked to indicate their age, their profession, the time they spend daily in their favorite channel, and how many people from the channel they knew personally from physical life. Finally, they were thanked. Participants were debriefed and informed about the results via e-mail.

¹ Participants had to indicate their age in three categories (18–24, 25–34, and 35 and older) to let them feel as anonymous as possible.

Measures. As a measure of *social identification*, the scale used by Simon and Massau (1991) was adapted. It includes five items (Cronbach's $\alpha = .73$, e.g., "I identify myself with this channel"). The *personal attraction* scale was computed from seven items (Cronbach's $\alpha = .89$, e.g., "There are a lot of nice people in this channel"). The *group attraction* scale was computed from five items (Cronbach's $\alpha = .51$, e.g., "The atmosphere in this channel is better than in other channels"). Two additional items were excluded because they correlated to a significant extent with the personal attraction items, whereas their content was related to group attraction.² All scales ranged from 1 (*I do not agree at all*) to 9 (*I agree absolutely*). The values reported below are based on means of the answers on the items belonging to a scale.

Results

Members of on-topic chat channels did not differ from members of off-topic channels in their age, $\chi^2(2, N = 94) = 4.21, p > .10$; their employment situation, $\chi^2(5, N = 94) = 4.17, p > .50$; or daily online time, $\chi^2(3, N = 94) = 0.71, p > .80$. Thus, members of both types of channels can be considered as roughly equivalent concerning the most essential demographic characteristics in the context of Internet communication. The differences in attachment type were reflected in the differing degree of contact in physical life. Thirty-three members of off-topic chats had met most or all group members in physical life, and 11 had met few or no group members, whereas only 6 members of on-topic channels had met most or all channel members in physical life, and 44 had met no or few members, $\chi^2(1, N = 94) = 38.27, p < .001$.

It was hypothesized that participants who favored off-topic chat channels perceived their group members as more personally attractive than the participants who preferred on-topic channels. In contrast, the members of on-topic channels were expected to perceive their group as more attractive and to show higher social identification than the members of off-topic channels. A 2 (chat channel type) \times 3 (attachment type) analysis of variance with attachment type as a repeated measures factor yielded the predicted Channel Type \times Attachment Type interaction, Greenhouse–Geisser $F(2, 168) =$

$56.62, p < .001$. The participants who favored an off-topic channel perceived the members of their channel as more personally attractive ($M = 7.02, SD = 1.14$) than those favoring an on-topic channel ($M = 4.44, SD = 1.87$), $t(82.46) = 8.16, p < .001$. Members of on-topic channels showed higher social identification ($M = 6.64, SD = 1.34$), $t(77.21) = 3.98, p < .001$, and higher evaluations of the attraction of their chat channel as a whole ($M = 6.18, SD = 1.20$), $t(84.34) = 2.49, p < .05$, than did members of off-topic channels (social identification: $M = 5.29, SD = 1.86$; group attraction: $M = 5.50, SD = 1.43$). Thus, the results for off-topic chat channels and on-topic chat channels match the results for common bond groups and common identity groups as described by Prentice et al. (1994).

Besides the differences in central tendency of attachment types, the dispersion of attachment within each channel type differed significantly between on-topic and off-topic chat channels. The standard deviation of perceived personal attraction was higher for members of on-topic channels than for members of off-topic channels, $F(1, 92) = 16.35, p < .001$, whereas standard deviations of social identification and group attraction measures were higher for members of off-topic channels than for members of on-topic channels, $F(1, 92) = 12.81, p < .001$, and $F(1, 92) = 5.38, p < .05$, respectively.

Additionally, it was predicted for members of on-topic chat channels that higher perceived group attraction would lead to higher social identification, whereas the personal attraction should be irrelevant for social identification within this type of channel. In contrast, members of off-topic chat channels were expected to show higher social identification as perceived personal attraction of their group members increased, whereas the group attraction should be less relevant for their social identification. To test these predictions, multiple regression analyses with personal attraction and group attraction as predictors and social identification as criteria were computed for members of on-topic and off-topic chat channels independently. The predictors personal attraction and group attrac-

² The results, reported in the following section, did not differ significantly when the social attraction scale was computed on the basis of all seven items.

tion were not correlated in common identity groups, $r(50) = .01$, whereas they were highly correlated in common bond groups, $r(44) = .57$, $p < .001$. The results of the multiple regressions fit the predictions: For members of off-topic chat channels the personal attraction was positively related to social identification ($\beta = .53$, $p < .01$), whereas group attraction was not related to social identification ($\beta = .02$, adjusted $R^2 = .26$), $F(2, 41) = 8.51$, $p < .001$. However, for members of on-topic channels the personal attraction was negatively related to the social identification ($\beta = -.29$, $p < .05$), whereas group attraction was positively related to the group identification ($\beta = .34$, $p < .05$; adjusted $R^2 = .16$), $F(2, 47) = 5.76$, $p < .01$.

Discussion

The predictions concerning the differences in group attraction, social identification, and personal attraction between common bond and common identity groups were supported. Not only did members of common bond groups perceive their group members as personally attractive, they also agreed about this perception. Members of common identity groups identified with their own group and perceived the group consensually as attractive. Thus, Study 1 demonstrates that the distinction between common bond and common identity groups is valid for natural online groups.

As expected in common bond groups, personal attraction was a better predictor of social identification than in common identity groups; in common identity groups, group attraction was a better predictor of social identification than in common bond groups. Thus, the identification with the group seems to be based on different mechanisms: In on-topic groups social identification relied on group attraction, and in off-topic groups it relied on personal attraction. The lack of a correlation between personal and group attraction and the negative correlation of personal attraction and social identification for on-topic channel members supported the idea of SCT. Personal attraction is a necessary precondition of neither group attraction nor social identification. In fact, perceiving personal attraction may in the case of on-topic chats even be a dysfunctional factor for reaching the group goal and not fit its norms. It might therefore have reduced identification: If a participant be-

gins to take a personal interest in another channel member and begins to chat off-topic, in an on-topic channel, distraction from the theme causes the defining norm (the topic) to be violated and the main goal (exchange of topic-related information) to be lost.

Members of off-topic chats reported more physical life contact than members of on-topic chats. This may be the case because chatting in the socializing-oriented off-topic groups may lead to a desire to get to know more about an individual and to meet in physical life, whereas in on-topic channels the theme is more important than the people. However, members of off-topic channels might also live closer together or know one another from physical life.

To recapitulate, the categorization of on-topic channels as common identity groups is consistent with predictions from SCT: Social identification with a group did not presuppose that the members of a group were perceived as attractive. The crucial factor is the perception of the group as a whole (Hogg, 1992; Hogg & Turner, 1985). The members of off-topic channels did not behave as predicted by SCT: In addition to the fact that personal attraction was a better predictor of social identification than group attraction, personal and group attraction were correlated. In sum, it seems to be useful to distinguish between common bond and common identity groups in virtual as well as in physical reality.

It should be acknowledged that this study did not rule out that the differences between both types of groups were caused by interindividual differences between the members of the groups. Even though participants did not differ in age, employment situation, or daily online time, there might be other differences between those people who join on-topic chats and those who join off-topic chats (e.g., the motivation to join a specific channel). However, Postmes and Spears (2000; see also Utz & Sassenberg, in press) showed that groups holding the defining features of common bond and common identity groups could be induced experimentally, ruling out alternative explanations solely on self-selection biases.

Taken together, the results of this study not only support the distinction between common bond and common identity groups based on differences in attachment measures shown by Prentice et al. (1994) but also give evidence of

different predictors of social identification depending on the group type. The different processes that led to social identification in both types of groups on the Internet support the assumption that different social situations on the Internet should be distinguished. Nonetheless, it is important to know how group members' behavior and group development are affected by the type of group. However, to my knowledge the experiment by Postmes and Spears (2000) reported above is the only study in which cognitive consequences of the different group types have been addressed. Consequently, I conducted a second study to test how the different types of groups manifest in verbal behavior.

Study 2

SCT predicts that identification with a social group leads to behavior that is in line with the norms of this group. There is strong evidence for this prediction from field research (e.g., Kelly, 1993; Simon et al., 1998) as well as from laboratory research (e.g., Jetten, Spears, & Manstead, 1996). Because members of common identity groups show higher identification with their group than do members of common bond groups, they should behave more in line with their group norms. To test this prediction, the communications on the channels that the participants of Study 1 had mentioned as their favorite ones (and two additional channels), were logged. Because a type of norm was needed that was applicable to any chat channel, the present study focused on formal aspects of communication. It is typical for chatters to use a lot of "smileys" (faces made out of characters) and acronyms (abbreviations typically used in Internet communication) to compensate for the lag of nonverbal and paraverbal communication (Walther, 1992; Utz, 2000). Because smileys and especially acronyms are continuously developed by the chatters within a channel (Baym, 1994), they differ depending on the channel. Thus, one can assess conformity to a chat channel's norm by measuring the homogeneity of the synonymous smileys and acronyms that are typed by the chatters. If all chatters in one channel homogeneously use the same acronym for the same expression (e.g., *rotfl* and not *rofl*, **rotfl**, or **rofl** for "rolling on the floor laughing"), this would be an indication for a strong norm. Because a large number of acronyms

exists for greeting and saying goodbye (e.g., *cu* or *cya* for "see you," *n8* for "[good] night"), words that are synonymous to these acronyms should also be considered.

Method

The communication of 15 chat channels (7 off-topic and 8 on-topic) was logged using an IRC client that can be used by any person on a chat channel. The experimenter logged on at various times, using one of 10 different German male names, changing the name from session to session. During the logging procedure I was visible to all participants, as they can see even those persons on the channel who do not participate in the communication. One might expect this to influence communication behavior; however, it is typical for many chatters to be logged into a channel without necessarily being active in the communication.

The communication on the channels was recorded for 220 hr, which means an average of 14 hr 40 min per channel. On average the logs contained 9,053 words ($SD = 10,264$) written by 105 persons ($SD = 87$). None of these characteristics, which might be relevant predictors of behavioral homogeneity within a channel, differed between on-topic and off-topic channels (all $t_s < 1$).

Using a computer program,³ I generated a list of all different strings (i.e., at least two characters between two spaces). Strings representing a smiley, strings with an asterisk at the beginning and end indicating verbalization of behavior, and strings for greeting, saying goodbye, and laughing were selected out of the complete list as target strings indicating adherence to a group norm. Thirty-seven different strings met these three criteria. The relative frequency of these target strings made up 4.76% of the communication. Their proportion did not differ systematically between off-topic and on-topic channels, $t(13) = 0.87, p > .30$.

To analyze the adherence to the group norm (i.e., the homogeneity of behavior), the 37 strings were checked for content that was expressed by different strings. Four statements were identified, each of which was expressed by

³ The computer programs can be requested from Kai Sassenberg.

at least three synonymous strings: greeting, saying goodbye, heavy laughing, and the standard smiley. The heterogeneity of the use of synonymous words for each statement within a channel was computed by adapting a formula originally developed by Linville, Fischer, and Salovey (1989) as a measure of perceived heterogeneity of groups. The probability of differentiation (pd) was computed for the four synonyms within each channel by subtracting the sum of squared relative frequencies of all strings that were used to express a synonym from 1. As a general measure of the conformity toward the group norm, the mean pd over the four synonyms was computed. The pd ranges from 0 to 1; the higher the value is, the lower is the homogeneity of behavior within a channel, which was interpreted as less adherence to the group norm. The resulting measure was not correlated with the number of persons within a channel or the number words logged from this channel ($r_s < .30$, $p_s > .30$). Thus, the inequality in the length of the log files and the number of participants did not affect the homogeneity of the communication behavior.

Results and Discussion

Consistent with what SCT would predict, the pd was higher for the communication behavior in off-topic channels ($M = .54$, $SD = .063$) than for on-topic channels ($M = .48$, $SD = .057$), $t(13) = 1.78$, $p < .05$, one-tailed. To test whether the effect of channel type on adherence to group norms in fact resulted from higher identification with on-topic compared with off-topic channels, the questionnaire data from Study 1 and the behavioral measures from the present study were analyzed together with groups (i.e., chat channels) as cases in the analysis.⁴ The mean social identification score for the members of a channel who completed the questionnaire in Study 1 was used in the present study as a measure of social identification in that channel. The homogeneity of the logged paralinguistic behavior was considered as a measure for the adherence of verbal behavior to the group norm. On the basis of these measures, the mediation (Baron & Kenny, 1986) of the effect of channel type on the conformity to the group norm by social identification was computed. At first glance this procedure might appear questionable. However, for dependent

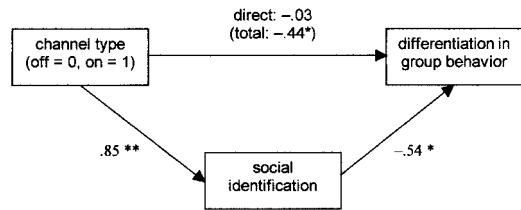


Figure 1. Path diagram (with standardized regression coefficients from multiple regression analysis) of the mediating role of identification. * $p < .05$. ** $p < .01$ (one-tailed).

variables such as group products or the behavior within interacting groups, as addressed here, an assessment on an individual level would be problematic because of high levels of interdependency (Anderson & Ager, 1978). Thus, a group level of analysis would appear to be adequate. The only potential problem of the procedure used here is that the group level measures were gained from arbitrary samples of behavior or channel members. Because it is impossible to do a survey of the behavior and the attachment of *all* members of a chat channel, the data presented here must be restricted to a sample of channel members.

The effect of chat channel type on adherence to group norm is nearly completely mediated by the social identification of channel members with their channel: Including social identification as a second predictor in addition to the channel type in a regression analysis reduces the effect of the channel type from $\beta = -.44$ to $\beta = -.03$ (see Figure 1). Thus, an argument can be made that the difference between common bond and common identity groups in the adherence to group norms can be traced back to the different amount of social identification.

General Discussion

The aim of this article was to analyze the attachment to different types of Internet-based groups and the conformity toward group norms. Following Prentice et al. (1994), one feature that could serve to distinguish groups is the dominating type of attachment to the group: Common bond groups are based on attachment

⁴ This analysis was restricted to the 13 channels for which both the questionnaire data and the behavioral measures were available.

to the group members, whereas common identity groups are based on the attachment to the group as a whole. The results of Study 1 show that common identity and common bond groups exist on the Internet. Members of common bond groups reported greater personal attraction and showed less variation in this judgment than members of common identity groups, whereas members of common identity groups showed higher identification and perceived consensually higher group attraction than members of common bond groups. These results not only support the meaningfulness of the differentiation between both types of groups but also suggest how the two types of groups might be related to one another. Prentice et al. (1994) assume that "these types of groups mark the opposite poles of a continuum" (p. 493). However, Study 1 indicated that the two types of groups each mark a pole of *different* dimensions and show diversity on the other dimension. Common bond groups are groups with a high personal attraction, but they show diversity in the group attraction, whereas common identity groups distinguish themselves by a high group attraction, but their members differ in the amount of perceived personal attraction.

Study 2 focused on the conformity toward group norms of paralinguistic symbols as an exemplary behavioral consequence differing between common bond and common identity groups. The greater adherence to group norms in on-topic compared with off-topic chats indicates that the former have consistent impact on their members' behavior to a greater extent than the latter. The mediation of the group type effect on the normative behavior suggests that social identification with the group is an important difference between both types of groups. Although this is a promising result it is still the only known behavioral consequence of the different types of groups and the magnitude of the effect is admittedly modest. A replication of these findings on the individual level would be desirable. Even though this evidence is preliminary, one might speculate that the results from research on social identity can be applied to common identity groups and the results from research on small groups can be transferred to common bond groups. However, neither is there direct evidence for this assumption nor has any systematic approach been made to compare both fields and distinguish similarities and dif-

ferences of predictions, with the exception of group cohesion (but see Karau & Williams, 1993, for an exception focusing on motivation). The differentiation between common bond and common identity groups offers a framework for further research in this field.

What conclusion can be drawn from the findings reported here in regard to the more general question of how social psychological research might address the Internet? The present findings provide support for the idea that virtual reality cannot be treated as a uniform situation. On the contrary, the variety of social contexts that can emerge on the Internet has been underestimated. General judgments of the Internet as good or bad or as hostile or pleasant would be oversimplifications. Thus, the question brought up by O'Hara-Devereaux and Johansen (1994), "Isn't it lonely out there in cyberspace?" (p. xiii), cannot be answered simply with yes or no but rather by "It depends . . ." (e.g., on the type of group one belongs to).

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