

10 Influences on the Nature and Functioning of Online Groups

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Groups within the electronic realm share many characteristics in common with groups that meet and function in shared physical spaces. Groups in both domains can be quite diverse in terms of the composition and personality characteristics of members, the purpose and goals of the group, and the contextual setting in which the group functions. A variety of factors likely affect and influence the structure and functioning of any given group. Many, if not most, of these factors can potentially influence the group, regardless of the domain (electronic or face-to-face) and produce similar outcomes. There are qualities of electronic communication settings and qualities of physical settings that can uniquely influence the dynamics of a group in those respective settings (see McKenna & Green, 2002; McKenna & Seidman, 2005 for reviews).

This chapter delves into the workings of online groups and examines potentially influential factors for group functioning. The chapter is divided into three sections, which examine (1) the role of the motivations and personality characteristics of individual members within the group, (2) the way in which different categories or kinds of online groups distinctly function (including support groups), and (3) aspects of the internal dynamics of online groups, such as cohesiveness, status and stereotypes, and performance.

Individuals and Groups

Individual motivations of members

Classical motivation theory indicates that all behavior is motivated in some way and that an individual will engage in particular behaviors to further a desired end (e.g., Atkinson & Birch, 1970; Lewin, 1951). Motivations are not fleeting but rather are enduring and pan-situational. The motivations that lie behind an individual's behavior find expression through situationally appropriate goals. The goals and motivations of group members, along with the behaviors prompted by those goals, can, of course, have a strong effect on nearly all aspects of the group. It is not always a simple task to tease apart the links between motivation, behavior, and outcome, however. Highlighted next are two arenas in which difficulty can arise when attempting to understand the workings of a group.

Different goals, same behavior, different outcomes. Different motives and goals held by different individuals may underlie the same surface behavior. For instance, someone may join and participate in an illness support group with the goal of gathering more information about the illness. Another individual might participate in the same group to gain social support. Still another may take part to demonstrate support for family member or a friend who suffers from the illness and who may or may not be part of the group. Participation in the group may lead to quite different social and psychological consequences for these individuals, even though they are engaging in the same kinds of activities online (see McKenna & Bargh, 1999; McKenna, Green, & Smith, 2001).

Different motivational processes, same consequences. To further muddy the waters, similar outcomes may result from different underlying motivational processes. For instance, we know that when anonymous group interaction is coupled with high group salience, the result tends to be increased adherence to the group norms (Spears, Postmes, Lea, & Wolbert, 2002). On the flip side, greater conformity to group norms can also be the result of identifiability if certain self-presentational motivations (e.g., to make a positive impression) are in operation (e.g., Barreto & Ellemers, 2000; Douglas & McGarty, 2001).

How an individual uses the available resources and interacts with others online will depend to a large extent on that person's motivations and goals. It is not only the individual for whom a particular motivation is operating that is affected, however, but the group as an entity itself. The goals of individual group members can interact not only with the Internet communication situation to produce social and psychological effects for that individual but also inevitably affect the processes and functioning of the group as a whole.

Personality Differences Among Members

Personality characteristics of members can strongly influence the functioning of the online group just as they can influence the functioning of an offline group. There are two personality characteristics in particular that have been found to play out differently in online group interactions than they do in traditional face-to-face interactions. Should a group be composed of a member (or members) possessing these personality traits, then the internal group dynamics are likely to be quite different if the interaction takes place online than if the group meets in person. Not only are the dynamics likely to be different but also the structure and performance of the group in question are likely to be influenced. These characteristics and their influence on the group are discussed next.

The socially anxious member: In traditional face-to-face group interactions, individuals who experience social anxiety generally take a less active role than do their outgoing counterparts (Leary, 1983). They tend to respond more slowly and less consistently in group interactions (Cervin, 1956) than do nonanxious members. Kogan and Wallach (1967) among others have found that shy group

members are more likely to exhibit indecisiveness and to engage more readily in opinion shifts. Further, in a task-oriented group, the socially anxious members tend to be better satisfied with the group performance even when that performance is substandard (Zander & Wulf, 1966). Finally, socially anxious members tend to be liked less well than nonanxious members in the group.

In online groups, however, the behavior and the standing of socially anxious members are quite different (McKenna & Seidman, 2005). Because many of the situational factors that can trigger and exacerbate feelings of social anxiety (e.g., having to respond on the spot, talking to someone face-to-face) are absent in online interactions, introverted individuals are able to engage in the group interaction on equal footing. As the study discussed below demonstrates, the online environment allows them to interact more comfortably and with less reticence than they would in a face-to-face situation.

McKenna and colleagues conducted a laboratory study examining the effects of communication modality and social anxiety on small-group interaction (McKenna, Seidman, Buffardi, & Green, 2007). Consistent with their responses on the Interaction Anxiousness Scale, socially anxious individuals in the face-to-face condition reported feeling anxiety, shyness, and discomfort during the group interaction, while the opposite was true for nonanxious participants. In marked contrast, interacting online produced significantly different results. Participants reported feeling significantly less anxious, shy, and uncomfortable, and more accepted by their fellow group members than did those who interacted face-to-face, but these effects were qualified by differences in levels of social anxiety. That is, the extroverted participants felt equally comfortable, outgoing, and accepted interacting online and in person. For those experiencing high levels of social anxiety, however, the mode of communication proved pivotal to their feelings of comfort, shyness, and acceptance. Moreover, the reports of the socially anxious participants in the online condition on these measures were virtually identical to those of nonanxious participants in the face-to-face condition.

Those experiencing anxiety in social situations have also been found to take more active leadership roles in online groups. McKenna and colleagues conducted a second study in which participants were again preselected based on their interaction anxiety scores. The subjects were randomly assigned to interact in groups of four, each group comprising an equal number of anxious and nonanxious members, either online or face-to-face. They then engaged in a decision-making task, following which they rated each of their interaction peers on measures of leadership, degree of participation in the discussion as compared with the other members, extroversion, and how much they liked the person based on their interaction. Peer ratings showed that socially anxious participants were as likely as their nonanxious counterparts to be perceived as leaders within the respective groups and to participate as actively when the interaction took place online. In the face-to-face condition, nonanxious

participants more often received the leadership votes and were the more active participants.

The aggressive member: Another personality characteristic that may have a stronger influence within online groups is aggressiveness. Many of the social constraints that generally serve to moderate an aggressive or dominating personality within face-to-face groups are absent within online group interaction (Sroull & Kiesler, 1985). The de-individuating conditions under which many online interactions take place can decrease a member's sense of personal accountability (Spears et al., 2002) and thus increase his or her willingness to engage in obnoxious or antisocial behavior within the group. Friction between members can be exacerbated within the online environment as a result. Much has been made of the "flame wars" that can erupt within, and sometimes splinter apart, large online groups. Groups with open membership online often find that they have attracted the attention of a "troll" – someone who joins the group with the goal of undermining and embroiling the larger group in conflict. Depending on the norms and structure of the group, such aggressive members may or may not meet with success (McKenna & Seidman, 2005).

Aggressiveness need not take an antisocial and obnoxious form, however. Just as in face-to-face interactions, members who, acting within social bounds, are more persistent in pushing their agendas while simultaneously taking an active and strong role in the group will exert a strong influence on the group. In an environment stripped of cues beyond the text, it is quite possible that the "mere exposure" effect (Zajonc, 1965) would result in the persistent member exercising greater influence over the group than would occur in other settings.

Different Groups, Different Dynamics

Not all electronic groups are the same. Groups with certain characteristics and purpose will produce different effects on members than those effects that will result from groups having quite different characteristics and purpose. In other words, the various features of communication will interact with the character and purpose of the group; the interpersonal effects of electronic interaction will vary as a function of the social context. Five distinct kinds of groups are discussed, with attention focused on the particular characteristics of the group that are likely to lead to divergent outcomes.

Organizational Groups

Organizational groups, whether functioning in an online or face-to-face environment, differ in many ways from groups that have a largely social purpose. Within social settings online, features of electronic communications (such as anonymity, the lack of physical presence, and the ability to exercise greater

control over one's side of the exchange) can lead to greater self-disclosure and feelings of closeness (see Joinson & Paine, 2007). Within an organizational setting, however, these same features can lead to the opposite result: research has shown them to produce greater distrust between parties when it comes to issues such as negotiations.

Thompson and colleagues (see Thompson & Nadler, 2002, for a review) have led the field in the study of electronic negotiations. They identified a major problem that arises in "e-gotiation": Negotiating partners often make implicit assumptions about time delays that occur in receiving responses from their opponents. Negotiation partners attribute quite different motivations to such delays than do partners who are interacting in a purely social framework. For instance, in a negotiation situation, people tend to assume that the other party will receive and read an e-mail as soon as they have sent it. They therefore expect an immediate response. If delays in receiving the response occur, they assume the delay is due to stalling, power plays, or disrespect by the other party (rather than assuming that the person has not yet read their message or is unable to respond instantaneously for any number of wholly non-Machiavellian reasons). As a result, exchanges between negotiating partners can become acrimonious, and they are less likely to reach a satisfactory agreement.

The Garden-Variety Social Group

The least researched kind of group, both online and off, is perhaps also the most common kind of group. The majority of group-related research has focused on business or organizational groups, political, civic, or community-at-large groups, highly specialized groups, or support groups (discussed below). Garden-variety groups such as the coffee klatch and the chess club have rarely been the sole focus of research.

One line of research that does specifically focus on such mainstream groups examines them in terms of a distinction between common bond and common identity groups. In common bond groups (such as among a group of friends), attachment to the group is based on the bonds that exist between the group members; in common identity groups (such as a sports team), attachment to the group is based on identification with the group as a whole (i.e., its purpose and goals) rather than on bonds between individual members (see Prentice, Miller, & Lightdale, 1994). Prentice and her colleagues examined traditional groups that fell into these two categories, and Sassenberg (2002) has examined equivalent groups on the Internet. In both communication venues, the research indicates that in common identity groups, as compared with common bond groups, there is greater adherence to group norms. Common identity groups and the norms that develop within them thus have been found to have a greater effect on individual members' behavior. Thus, the kind of group to which one belongs (whether online or offline) matters. As is discussed next, even further distinctions can be made when the common identity is a stigmatized one.

Stigmatized Groups

For those with socially stigmatized aspects of identity, participation in an electronic group devoted to that identity aspect can prove to be particularly beneficial for the individual. Identifying others who share an embarrassing or socially sanctioned aspect of identity in one's everyday life can be quite difficult and the social risks that accompany such attempts can be large. Within the online environment, however, the situation is different. By interacting under a protective mantle of anonymity, people can seek out others who share these aspects of self online with far fewer costs and risks to their everyday social life. Because there is often no equivalent "offline" group, membership and participation in a relevant virtual group can become an important part of one's social life and can have powerful effects on one's sense of self and identity.

Extending the findings of Prentice et al. (1994) and Sassenberg (2002), McKenna and Bargh (1998, study 1) found that people with stigmatized and concealable social identities (see Frable, 1993; Jones et al., 1984), such as homosexuality or fringe ideological beliefs, are more responsive to the feedback they received from other group members than are individuals taking part in nonmarginalized groups. In other words, the norms of such groups exert a stronger than usual influence over members' behavior. These members are motivated to behave in such a way as to gain acceptance and positive evaluation from their fellow group members. Thus, compared to the mainstream Internet groups, within the stigmatized identity groups, participation significantly increased when there was positive feedback from the other group members and decreased following negative feedback.

According to Deaux's (1996) model of social identity, active participation in a stigmatized-identity group should lead to the incorporation of the virtual group membership into the self. Individuals then tend to be motivated to make this important and new aspect of self into a social reality (e.g., Gollwitzer, 1986) by sharing it with important others. In line with this, McKenna and Bargh (1998, studies 2 and 3) found that many participants taking part in such online groups had, as a result of their Internet group participation, come out to their family and friends about this stigmatized aspect of themselves for the first time in their lives. Through their participation, they benefited from increased self-acceptance and felt less socially isolated and different. Clearly, membership and participation in Internet groups can have powerful effects on one's self and identity.

Support Groups

The role of active participation as an important mediator becomes clear when examining whether positive benefits will accrue for an individual who participates in an online support group. Barak and Dolev-Cohen (2006) conducted a longitudinal study with emotionally distressed adolescents who were taking

part in Sahar, a free online support network for those experiencing emotional distress in Israel. While the researchers found that, on average, the emotional distress of the participants did not lessen because of membership in the group, the degree of active participation in the group did significantly affect emotional distress. Those who engaged in more active participation in the first month of the study experienced significantly less emotional distress by the third month of the study as compared with those who participated less. The emotional distress of those who did not participate as actively remained at the same (high) level recorded at the beginning of the study. In line with these findings, greater participation in community support websites for the elderly, such as SeniorNet, is associated with lower perceived life stress (Wright, 2000).

For those who lack adequate support from members of their established social networks, online support groups may prove to be an important additional emotional resource to be used. For instance, a study of diabetics (Barrera, Glasgow, McKay, Boles, & Feil, 2002) found that those assigned to participate in online diabetes support groups felt that they had received more support, in general, than did those asked to use the Internet only to gather information about their illness (and to thus rely only on their offline social network for support). Participation in an online support group for the hearing impaired was also found to be particularly beneficial for participants with little “real-world” support (Cummings, Sproull, & Kiesler, 2002). Online support groups may be particularly crucial for those who feel actively barred from turning to family, friends, and physically based support groups. Davison, Pennebaker, and Dickerson (2000) found that people are particularly likely to turn to Internet support groups if they are suffering from an embarrassing, stigmatized illness, such as AIDS, alcoholism, or prostate cancer, because of the relative anonymity of the online community. These patients feel anxiety and uncertainty and are thus highly motivated by social comparison needs to seek out others with the same illness.

Yet again, however, differences between kinds of support groups can lead to quite different outcomes and to different group dynamics. For instance, Blank and Adams-Blodnieks (2007) found strong differences in the communicators in breast cancer support groups compared with those taking part in prostate cancer support groups online. Groups related to the female-oriented disease were composed largely of survivors themselves (87%), with spouses of the survivors making up only 3 percent of the group membership. In contrast, both spouses (29%) and family and friends of survivors (17%) were active members in the groups related to the male-oriented malady, with the survivors themselves making up just slightly more than half (54%) of the group. These differences in membership composition translated into differences in the kinds of support sought (emotional versus treatment-related) as well as the topics addressed in the two kinds of groups.

Galegher, Sproull, and Kiesler (1998) have found that, within online support groups, the process by which members establish legitimacy (and acceptance)

unfolds somewhat differently than occurs in the garden-variety common bond group. Members in support groups tend to signal their legitimacy as bona-fide members of the group in their postings more so than do those who interact in groups devoted to hobbies, such as cooking groups. They do so by indicating within their post how long they have been participating in the group (either by posting or by reading) or by making references to the groups shared history.

Moreover, providing such legitimacy claims seems to be an important component to actually attaining legitimacy and inclusion within online support groups. When Galegher et al. (1998) examined posts that received feedback versus those that received none, they found that members were significantly more likely to respond to the poster if an "I'm a legitimate member" claim was made than if it was not. Indeed, of the posts that received no response from other members of the support group, almost all of them lacked a clear membership claim. In other words, those posts that did not explicitly acknowledge the common bond of the group were ignored by the other members. It is thus perhaps not surprising that 80 percent of the posts that asked for information or advice included a claim to group membership even if such queries were asked by frequent participants (and thus readily identifiable members) in the group. Clearly, the explicit establishment –and continual reestablishment – of legitimacy has become a norm particular to online support groups and, as is discussed in greater detail in the next section, an important component of group cohesion and influence within these groups.

Internal Dynamics of Groups

Cohesion and Influence

Many factors affect the cohesiveness of a group, the degree to which members of a group will exert influence on one another, and the extent to which they will be affected by the norms of the group. Certainly, in online groups, the anonymity versus identifiability of group members is particularly important in promoting or hindering cohesion and influence.

Spears et al. (2002) have argued that anonymous communication within groups leads to a sense of depersonalization by the group members. That is, when members feel an absence of personal accountability and personal identity then the group-level identity becomes more important. When the group-level identity is thus heightened, Spears et al. (2002) have shown that group norms can have an even stronger effect than occurs in face-to-face interactions. The degree to which the group identity is salient, however, plays an important role in determining what the effects of anonymity will be on the development and influence of group norms.

For instance, Spears, Lea, and Lee (1990) found that when members of online groups interacted under anonymous conditions and group salience was

high, normative behavior increased in those groups as compared with electronic groups in which members were anonymous but the salience of the group was low. An intermediate level of conformity to group norms was evinced whether group salience was high or low for those participants who interacted under individuating conditions.

The interaction between anonymity and identity salience is most clearly delineated in a set of studies examining the effects of primed behavior in electronic groups. Postmes, Spears, Sakhel, and De Groot (2001) primed participants with either task-oriented or socioemotional behavior before taking part in electronic groups under either anonymous or identifying conditions. Members in the anonymous groups displayed behavior consistent with the respective prime they received, considerably more so than did their counterparts who interacted under identifiable conditions within their groups. Normative behavior strengthened over time in the anonymous groups, with the members conforming even more strongly to the primed behavior. In contrast, when members were identifiable to other group members, their behavior ran counter to the norms and became even more prime-inconsistent over time.

Status and Power

According to McClendon (1974), equal status increases the likelihood for perceived similarities both within and between groups and so enhances the likelihood for improvement in their relationship. This is particularly the case when it comes to groups containing minority members, and in the reduction of stereotypes when there is ingroup and outgroup interaction (Pettigrew, 1971). In face-to-face encounters, even very subtle differences in manner of dress, body language, use of personal space, and the seating positions taken in the room can belie real (or perceived) status differences. As Hogg (1992) has shown, within group interactions people tend to be highly sensitive in discerning subtle cues that may be indicative of status.

Online interactions have somewhat of advantage here because many, although not all, of the cues that individuals typically rely on to gauge the internal and external status of others are not typically in evidence. Yet status differences can and do manifest themselves in online groups as well. As Sassenberg, Boos, and Klapproth (2001) have shown, those perceived as experts in terms of task-related knowledge are generally regarded as more useful resources for information as well as given more room in interactive discussions to express their points of view. When such differences do become evident and they are *specifically* relevant within the context of the discussion or the task, they can have an even more pronounced influence than occurs in a comparable face-to-face interaction (see Postmes et al., 2002).

In other situations, even when status differences are known, electronic interaction tends to ameliorate some of the effects of status differentials. For

instance, when bringing together members of two established groups, the members are likely to be well aware of the internal pecking order within their own group even if they do not have knowledge of the established hierarchy among the other group's members. In face-to-face interactions, such distinctions within the groups often quickly become apparent to all, as those who stand lower tend to speak up less often and, in ways both obvious and subtle, give deference to those with higher status within their group.

Such is not the case in electronic interactions. One aspect of electronic communications that has long been decried (e.g., Sproull & Kiesler, 1985) is the tendency, within organizational settings, for there to be a reduction in the usual inhibitions that typically operate when interacting with one's superiors. In other words, existing internal status does not carry as much weight and does not affect the behavior of the group members to such an extent. Underlings are more likely to speak up, to speak "out of turn," and to speak their mind. Thus, electronic interaction makes power less of an issue during discussion that leads group members, regardless of status, to contribute more to the discussion (Spears et al., 2002).

There are distinct advantages to having participants engage in a "group contact" from the privacy of their respective homes. Participants are likely to feel more comfortable and less anxious in their familiar surroundings. Further, research has shown that public, as opposed to private, settings can exacerbate the activation and use of stereotypes, especially when it comes to those tied to racial prejudice (e.g., Lambert et al., 2003). As Zajonc (1965) has shown, an individual's habitual or dominant response is more likely to emerge in public settings, whereas the individual is likely to be more open and receptive to altering the habitual response when in a private sphere. Research has shown that even when participants interact in quite "public" electronic venues – but do so from the privacy of their homes – they tend to feel that it is a private affair (e.g., McKenna & Bargh, 2000; McKenna, Green, & Gleason, 2002). Thus, interacting electronically from home should serve to inhibit the activation of stereotypes as compared with a more public and face-to-face setting in a new environment.

The Emergence of Group Leaders

In online groups and in face-to-face groups, as group membership becomes increasingly salient, members tend to become highly sensitive to prototypical characteristics of the group, that is, to the characteristics that distinguish that group from other groups. They also become sensitive to how they and other members compare with that prototype. As the social identity theory of leadership (e.g., Hogg & Reid, 2001) suggests, when there is a high degree of overlap between an individual's characteristics (e.g., goals, values, and attitude) and the group prototype, that individual is likely to emerge as a group leader.

Research by Hogg (1992) and others has shown that people have a heightened awareness for even subtle differences in prototypicality among their fellow group members. They are able to delineate which members most closely conform to the prototype (the leaders) and which fit the mold to a lesser degree (the followers). Group leaders are thus those individuals who seem to best embody the behaviors and norms to which the other group members are attempting to adhere.

We tend to think of leaders as not only embodying the group prototype but also as individuals who actively influence the behaviors of the other group members. In the case of established groups, that is certainly the case. Such is not the case when it comes to newly formed groups, however. In new groups, individuals who best fit the prototype do emerge as leaders but not because they are actually exerting any influence over the group. Rather, they are perceived (by the other group members) to be exerting an influence over the less prototypical members. In reality, however, it is not the individual who is exercising the influence but the prototype that the leader happens to most closely fit (e.g., Hogg & Reid, 2001).

We would expect that the social identity theory of leadership would apply even more strongly in electronic groups than in face-to-face groups for a number of reasons. Factors that have been shown to be influential in determining who will be seen as best fitting the group prototype, such as physical appearance and interpersonal dominance, are not generally in operation in online interactions. In face-to-face groups, the individual who most closely fits the goals, values, and ideals of the group might nonetheless be dismissed as a potential leader by other members because biasing factors such as the prospective leader's age, physical attractiveness, and race may play a role in their assessment. Age and race are often counter-prototypical features and people are often not aware that such factors are negatively affecting their judgments about someone (see Bargh, 1989; Brewer, 1988). Because such factors are not generally in evidence in online groups, they would not play an influential role and thus would not hinder the most prototypical individual's rise to leadership. As discussed earlier, this has been shown to be the case for individuals who, in face-to-face group interactions, are reticent, shy, and relegated to follower roles but in online interactions prove to be outgoing, active members who can attain leadership roles (McKenna et al., 2007).

Group Performance

Today many organizations have working teams whose members are dispersed all around the world and who frequently communicate, cooperate, and complete tasks through the Internet. Successful outcomes routinely occur even though, in many cases, the team members have never met one another and are unlikely to do so. This phenomenon is known as a *virtual team*. The development and utilization of virtual teams is becoming increasingly common

within organizations, particularly as the benefits of including virtual teams have become more evident (Cascio, 2000). For instance, employers find that telecommuting increases worker productivity and improves attendance (Abreu, 2000).

The evidence accumulated thus far seems to indicate that tasks performed by virtual teams are done equally well as those conducted by face-to-face work teams. Dennis (1996) along with his colleague Kinney (Dennis & Kinney, 1998) have conducted a number of studies examining the functioning of face-to-face and virtual work teams and discovered differing trends that nonetheless lead to the same unexceptional result for both. For instance, they found that members of verbally interacting work groups tend to share less vital information than do members of electronic work groups and hence make poor decisions. Yet, members of the electronic groups also tend to make poor group decisions, despite exchanging 50 percent more of the vital information needed to make an optimal decision. Galegher and Kraut (1994) also found that for virtual work groups the final product was similar in overall quality to that produced by face-to-face group members.

As Brandon and Hollingshead (2007) note, technology “intertwines” with the specific tasks being performed to influence group outcomes. In particular, some tasks are better suited and better results will be achieved through text-based interaction, while others require higher levels of media richness (e.g., Hollingshead & Contractor, 2002).

Conclusion

Many elements can contribute to and shape the nature and functioning of online groups. Some factors are equally influential for groups that operate in the traditional face-to-face sphere. Some factors, while having been found to exert an influence on traditional groups, play a greater or a lesser role within online groups. Yet other factors appear uniquely to influence the dynamics of online groups.

Different categories or kinds of groups online operate differently. The organizational group will function differently than will the recreational group or the support group. Groups within those larger categories will differ from one another as well, as they are influenced by the composition of their individual members. The various goals and the personality characteristics of the members will, for instance, uniquely affect the group in question.

Issues such as the degree of anonymity of the members and the salience of the group identity, to name a few, will uniquely interact with the situational context in which the group is functioning, the personality characteristics of the members, and so forth to shape the behavior of the members and the overall group dynamic and structure. All of these factors make the dynamics of online groups dynamic indeed.

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