

In electronic support groups, people use Internet-based electronic text communication to discuss personal problems or disorders with others who share common circumstances. Although their discussions exist only in the electronic medium, these groups can be viewed usefully as discourse communities. The authors draw on what is known about two other popular sources of help—face-to-face self-help groups and self-help books—to frame the rhetorical challenges faced by members of electronic support groups. The authors then compare the discourse of electronic support groups with that of electronic hobby groups to demonstrate that the two sets differ in terms of the rhetorical behavior of their participants. The authors analyze messages to determine how members establish legitimacy and authority in their texts and how message exchange gives rise to group identity and a sense of community. Our observations indicate that although some discourse characteristics and some rhetorical features are common to all the electronic groups we studied, others are unique to the special requirements of electronic support groups.

Legitimacy, Authority, and Community in Electronic Support Groups

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>I took a huge step tonight in erasing myself
>for good. I finally got the 12 gauge shotgun I had
>been thinking about for awhile. At last.

I have felt the way you do . . . I have popped those pills one after the other. Many years ago I had a rifle barrel in my mouth, and it went off.

Silly me, Oh dear, blew a hole in my neck. But I'm damned glad I lived.
Can you convince me that I was wrong, that I'm still wrong?

—alt.support.depression

This excerpt is from an Internet discussion group called alt.support.depression, which is read by more than 20,000 people. Electronic groups are proliferating on the Internet and offer scholars a rich source for the study of many communicative phenomena. Others have analyzed technical and professional groups (e.g., Finholt & Sproull, 1990; Herring, 1996; Howard, 1997; Orlikowski & Yates, 1994), hobby groups and special interest groups (e.g., Baym, 1993, 1996; Sproull & Faraj, 1995), political action groups (e.g., Gurak, 1997), and general communities (e.g., Smith, 1992). We chose to analyze support groups to understand how strangers use the electronic medium to seek and offer support on topics fraught with physical and emotional pain.

Research on face-to-face support groups typically has examined the efficacy of group-level interventions, including peer discussion; some investigations have assessed the role of social support as both cause and consequence of group participation; and a few also have examined the effect of social support as a moderator of support group outcomes (Helgeson, Cohen, Schulz, & Yasko, in press). Although such research is both theoretically and practically valuable, the focus on structured interventions may preclude opportunities to examine the naturally occurring talk of group members.

The existence of electronic groups provides an opportunity to unobtrusively observe the dynamics of particular support groups. Beyond their interest as a particular form of talk, our findings may inform the design of subsequent interventions and descriptive studies. However, in this article, we do not make claims regarding the clinical value of participation in electronic support groups. Such claims would require the kind of investigation described above, aimed at both subjective indicators of well-being and medical progress. Discourse analysis,¹ instead, allows us to observe the expression of individual concerns and the dynamics of support groups that arise from individual attempts to seek and give help. We begin by contrasting electronic support groups with other forms of self-help.

Authors' Note: This research was supported by a grant to the second author from the Markle Foundation. We are grateful for assistance from David Martin and comments from Judith Donath, Jonathon Cummings, Yameng Liu, Barbara Johnstone, Paul Hopper and Chris Neuwirth. Address all correspondence to: Jolene Galegher, Department of English, Carnegie Mellon University, Pittsburgh, PA. E-mail: galegher.andrew.cmu.edu.

Next, we present our findings from the analysis of electronic support groups and electronic hobby groups. We describe important contrasts between the two kinds of groups, but because our inquiry primarily focuses on support groups, we present the results regarding those groups in more detail. Our findings reveal that although the hobby groups and support groups confront similar rhetorical exigencies, differences in the focus of the two sets of groups are associated with noteworthy differences in patterns of discourse within the groups.

SELF-HELP DISCOURSE: READING, WRITING, AND TALKING ABOUT PROBLEMS

Ideally, people with serious problems would find information, encouragement, and support close at hand—at home, in their community, and in their relationships with their own doctors or other experts. Friends, families, and professional authorities would be accessible, informative, and supportive. Many people, however, do not have friends or family close by,² and professional assistance may be unavailable. Even if a person does have compassionate friends, family members, and skilled caregivers, these relationships are almost always circumscribed—by time, by expectations of reciprocity, by reluctance to discuss personal problems, or by the sense that only people in the same situation can truly understand. Furthermore, finding people in the same situation may be difficult if the affliction is not widespread or is culturally devalued (Frable, 1993). Finally, many people's problems may stem from dysfunctional patterns of communication in their local social networks (Sarason & Sarason, 1985; Turnbull et al., 1993). To overcome or to supplement limitations in sources of social and professional help, many people seek advice in self-help books, self-help groups, and more recently, in self-help groups on the Internet.

More than 2,000 self-help books are published each year (American Psychological Association, 1989); one in three adult Americans has bought one at some point (Wood, 1988, cited in Grodin, 1991). Self-help books offer readers the opportunity to obtain information about whatever topic concerns them as well as the opportunity to compare their experiences with those of the people described in the books. In some situations, reading self-help books can be as effective as working with a professional therapist in alleviating problems such as anxiety, sexual dysfunction, and depression (Marrs, 1995). Quite apart from

their potential effects, however, the material characteristics of self-help books have consequences for how their meaning is experienced. As is the case with any printed document, each reader constructs meaning through a text that has been completed before the reader comes to it. Readers' efforts to obtain information, insight, and perhaps solace can be carried out in complete privacy. These texts, however, offer neither personalization nor social interaction. The text is written for multiple readers rather than for any one particular reader, and readers usually do not interact directly with the writer or with other readers. A self-help book might help a reader overcome suicidal impulses, but neither the author nor another reader are available to respond immediately to a statement of suicidal intentions.

Face-to-face self-help groups offer personal responses and social interactions that books cannot provide. These opportunities are compelling to many; during the early 1990s, more than 7.5 million Americans participated in self-help groups (Lieberman & Snowden, 1993, cited in Humphreys & Rappaport, 1994).³ Systematic study of these groups is difficult because discussions are usually confidential; because numerous groups are needed to study group level interventions; because interventions studies require consistent, detailed implementation across groups; and because treatment effects often interact with personal characteristics. Although objective outcome measures present a mixed picture, extant studies indicate that, at least on self-report measures, participation in such groups is associated with improvement in individual health and well-being (Helgeson & Gotlieb, *in press*; Stewart, 1990; Trojan 1989).

The popularity of support groups is hardly surprising; many studies from distinct but related streams of research on self-disclosure, social comparison, and reactions to stressful life events have shown that when people face uncertainty, stress, and pain, they tend to seek and benefit from opportunities to share their feelings with others (e.g., Archer, 1987; Pennebaker, 1989). Still, the desirability of sharing experiences with others is neither universal nor unlimited. People might be grateful for the opportunity to open up, but they also might feel pressured to be more self-disclosing than is comfortable or overwhelmed by the emotional needs of others. Moreover, self-help groups, which typically meet once a week, cannot always offer the immediacy required to respond to a pressing emotional need. Also, because they are comparatively small, self-help groups may lack members who share a person's specific diagnosis or social circumstances.

Since the development of computer networking technology, new ways of learning about the experiences of other people and, if desired, of interacting with them have become available in the form of electronic support groups. Commercial services support forums and on-line chats; the Internet and commercial services support subscription mailing lists; and the Internet supports Usenet groups, or electronic bulletin boards, that anyone can read or post to if he or she has access to a computer linked to the Internet.⁴ More than 200 Usenet groups or bulletin boards are devoted to the discussion of conditions or situations that cause members pain and distress; more than 125 of these explicitly include *support* in their names—from alt.support.abuse-partners to alt.support.turner.syndrome (Grohol, January 1998, <http://www.grohol.com>). In these groups, people can share experiences and emotions with others who are neither professional helpers nor part of their local network of friends and family members.

Electronic support groups resemble face-to-face support groups in that both are likely to be populated by people who share a particular diagnosis or problem. Yet, electronic groups also differ from face-to-face groups in important ways. Face-to-face groups meet periodically at the same place and time. Usually, they are comparatively small and their participants reside in a single geographical community. Confidentiality regarding the group's proceedings may be expected, but one's physical presence and the possibility of encountering others in one's community create a risk of unwanted public exposure. Furthermore, these groups often exert social pressure on members to participate actively and to disclose their thoughts and feelings. Small size, local geography, and social pressure make these groups less private, less anonymous, and more conformist than are electronic support groups.

By contrast, electronic support groups can be very large, with membership in the thousands or tens of thousands. Participants can be anywhere as long as they have access to a computer linked to the Internet, and they can communicate with other group members whenever they wish; electronic groups are open for business 24 hours a day. Their discourse occurs asynchronously across time and place among people who are unlikely to have met one another face to face or to share the same speech community (Hudson, 1996). Group discussion in electronic support groups is visible to any computer user who cares to read the posted messages. Readers, or lurkers, can participate without revealing anything about themselves, including their pres-

ence, to other participants. For writers, or posters, electronic support groups offer the possibility of presenting their ideas, thoughts, and feelings apart from their physical selves (Sproull & Kiesler, 1991). By using nicknames and anonymous remailers, they can participate without making their true identities known. The large size and non-local geography of electronic support groups as well as the invisibility of readers and comparative anonymity of writers in these groups imply several important features. Electronic groups offer the possibility of encountering people of any age or social category, of learning about many different perspectives on a given problem, of finding people with similar problems, and at the same time, of communicating in comparative privacy and psychological safety.

Because contributions are written, electronic support groups might be viewed as collections of very short, self-published, self-help texts.⁵ However, unlike self-help books—or any conventionally published works—no external institutions warrant the authority of these texts. They also differ from conventional texts in the way that reader and writer roles are constructed. Conventional texts are one-to-many publications; authors produce a complete text and the text is presented to readers through appropriate marketing and distribution channels. Although readers of an ordinary text might, at some point, become writers, conventional publications generally require a considerable investment of time, intellect, and money and are not addressed directly to a specific individual. In electronic groups, however, every reader also can be an author and people can switch rapidly from one role to another. Anyone can read posts to the group and can post new contributions for others to read; any number of people can talk and listen simultaneously. Thus, meaning is constructed through the interaction of people who may, at one moment, be writers and, at the next moment, readers. The text is ever changing as topics, or threads of conversation, are built on questions or statements and replies or reactions.

The electronic group combines conventional features of oral conversation and written text as well as new features specific to the medium to create a unique structure. For instance, the terminology of *posting*, *bulletin boards*, and *newsgroups* is suggestive of broadcast media. Yet, most of the posts in electronic groups are conversational; they are responses to other posts and are directed to a particular person's remarks or questions. As Shank and Cunningham (1996) argue,

from the oral side, it is as if everyone who is interested in talking can all jump in at once, but still their individual voices can be clearly heard. From the written side, it is as if someone had started writing a piece, but, before he/she gets too far, people are there magically in print to add to, correct, challenge, or extend the piece. Therefore, what we have is a written quasi-discussion. (p. 30)

RHETORICAL CHALLENGES OF ELECTRONIC SUPPORT GROUPS

The technology of electronic support groups permits certain communicative phenomena, such as comparative privacy and anonymity, the opportunity to address others without being physically present, and the ability to shift from reader to writer and back again. At the same time, it rules out others, such as the use of intonation and gesture, conversational turn taking and backchannel feedback, and reliance on a shared physical environment or ongoing relationship to frame the conversation. These properties create a particular set of rhetorical challenges and opportunities, regardless of the topic under discussion.

Legitimacy

Anyone can enter an electronic support group at any time, but no one is obligated to acknowledge his or her presence or to help others. To obtain direct support and information from others in the group, one must demonstrate legitimacy—that his or her concerns are genuine and justified. In a face-to-face support group, a member's physical presence at a meeting is usually sufficiently informative to legitimate that member's claim on the group's attention. But the actions associated with showing up also reveal a more elaborated wish for legitimacy within the group. For example, one might, at a minimum, dress appropriately (albeit casually), travel to the group, wear a stick-on name tag regardless of the length of one's membership, and contribute to the coffee fund. These actions illustrate that the group and its conventions are important to the individual—that he or she wants to be a legitimate member of the group. This display of belongingness increases the likelihood that the individual will be granted some airtime during which others will pay attention and respond when he or she speaks. Indeed, the expectation that everyone will speak and

the need to guarantee airtime are factors that limit the size of face-to-face support groups. What, then, do individuals in computer-mediated groups do to reveal their commitment, to ensure that their contributions will be seen as legitimate? Techniques for demonstrating commitment that are available in face-to-face groups are either unavailable or ineffective on the Internet (e.g., no one would think of dressing up to gain respect) and, as we will show, merely showing up electronically (that is, posting just any electronic message) is an insufficient way to demonstrate commitment and be perceived as legitimate. Messages can be ignored or they can be dismissed as illegitimate. Thus, we hypothesize that one of the central challenges for participants in these groups is establishing the legitimacy of their posts as a precondition for gaining the attention of others.

Authority

Because electronic mail programs automatically provide external legitimating cues for replies to previous posts, in shifting from asking questions to answering them, a poster's rhetorical concerns are likely to shift from establishing legitimacy to conveying authority. Presumably, people who provide answers want readers to believe not only that they have a right to speak, but also that their answers should be believed. Contemporary theorizing about authority focuses on the idea that the exercise of authority is inherently interactive. According to Liu (1997):

For arguments to function . . . they have to make, and to get away with, tacit claims to their *appropriateness*, *relevancy* or *sufficiency*. These arguments are accepted as "good" or "effective" proof in themselves only when the arguer [or, in our study, answerer] does not feel the need to offer and the audience does not request an answer to questions such as . . . "What reasons do I/you have for linking these particular arguments to this particular point?" (p. 418)

The importance of this conception derives from its focus on the circumstances of arguments between equals. As is the case in electronic groups in which readers can become writers, this formulation encompasses the idea that claimants can become questioners and vice versa. Arguments are likely to be challenged when an interlocutor does not accept the presumptions or the tacit claims of a speaker or writer and challenges him or her to accept the burden of proof in

further argument. Likewise, an individual who wants to state an alternative position must accept, to a certain extent, the burden of proof for his or her point of view.

In self-help books, authority typically is warranted through the professional credentials of an author and pseudo-personal experience in the form of stylized case studies (e.g., Coyle & Grodin, 1993). Arguments challenging the authority of these texts might contend that the solutions proposed in the texts were not appropriate (e.g., the text was written in scientific discourse when the intended audience was the general public), were not relevant (a book purporting to be about couples' communication turned out to be about communication in the workplace), or were insufficient (e.g., a book cover claimed a text provided information about overcoming depression, but there was no information about antidepressants in the text).

In face-to-face self-help groups, statements intended to convey authority are likely to be more or less open to challenge, depending on the constellation of characteristics of group members and topics that make up the rhetorical context. Professional expertise is excluded unless reported or interpreted through the experience of a member (e.g., Borkman, 1976; Rosenberg, 1984; Silverman, 1982). Unless such information is brought close to the painful, day-to-day experiences of members, it might be regarded as relevant but inappropriate and insufficient. However, when appropriately adapted, such information can enhance the perceived authority of a group member. The tacit claim to authority underlying secondhand reports of medical or scientific information would be something such as: I am telling you about relevant medical research; medical researchers understand the biological substrates of our illness; what I am saying is authoritative because it is based on medical research.

In addition to reporting the expertise of others as a tacit claim to authority, individual members draw authority from their ability to connect their own experiences with the problems presented by other people in the group. That is, statements made on the basis of personal experience, although weak epistemologically (in Liu's [1997] terminology, *insufficient*), may be seen as both appropriate and relevant by other members of the group. The influence of participants also depends on their ability to gain the respect and liking of others through their social standings and through communications skills such as well-timed responses, appropriate vocabulary, and appealing verbal and nonverbal paralinguistic cues (O'Keefe, 1990).

In electronic support groups, participants rarely have the professional credentials of self-help book authors. Nor can they rely on their dress, demeanor, physical appearance, facial expression, gesture, intonations, or the timing of their contributions to enhance their credibility, as they might in face-to-face conversations. Always a delicate task, expressing oneself authoritatively to peers in electronic support groups is a key rhetorical challenge.

METHOD

To explore the rhetorical challenges of legitimacy and authority, we used text data from the discourse of three Usenet support groups and, for comparison, three Usenet hobby groups. For more than a year, we were participant observers in these groups (one support group and one hobby group per author), and we captured the complete text of all messages to each of these groups for a 3-week period in late 1995. Collecting messages from multiple groups for the same time period allowed us to make quantitative comparisons. For the most part, however, we used message archives as sources of messages for discourse analysis and for qualitative comparisons among the groups (Potter & Wetherell, 1987). Thus, the current article is an interpretive discourse analysis, supported by both examples from the corpus of messages we read and quantitative data.

The electronic support groups we studied are devoted to the topics of arthritis (alt.support.arthritis, which split during the study, health.misc.arthritis), attention-deficit disorder (ADD) (alt.support.attn-deficit), and depression (alt.support.depression). We selected these groups out of personal interest and experience, which helped us understand the medical and psychological problems and treatment alternatives discussed in the groups. Although arthritis, ADD, and depression differ medically and psychosocially, they also have important similarities. In particular, each is an involuntary chronic or recurring condition that impinges in many ways on the individual's ability to participate in, enjoy, and succeed at normal daily activities, whether physical, social, or occupational. The electronic hobby groups to which we compared the support groups dealt with the topics of cooking (rec.cooking.recipes), pet dogs (rec.pets.dogs), and quilting (rec.crafts.textiles.quilting).

With the exception of some Usenet newsgroups devoted to jokes and graphic erotic material rather than discussion, all Usenet newsgroups have certain discourse features in common—they tend to have large numbers of readers and fewer writers, they are active 24 hours a day, and they structure discussion in threads consisting of a post on a topic and replies to it. Our unit of analysis was the thread, which we operationalized as a post with all replies explicitly referring to that post in their header line. Every message in the archive was coded as either a *seed* (a message that had replies), a *reply* (referencing another message in the subject field of the header), or a *solo* (neither of the above). People who replied to a post without using the reply function or who edited their subject field to delete the reference to a previous message created messages that were not included in our operationalization of threads.⁶

Although threads are separable units of analysis, they are not necessarily complete discussions of a topic. Replies sometimes not only address the original seed message, but other replies as well. The author of a seed message sometimes replies to replies or elaborates on the original message. Writers may quote parts of messages and inject their comments at intervals in the quoted sections so that all readers can see what occasioned their responses. Sometimes topics carry across multiple threads, and sometimes parts of conversations move to private e-mail and become invisible to the group. Despite these complications, individual threads are coherent and contain localized evidence (i.e., within single messages or in question-and-answer sequences) of participants' efforts to deal with the rhetorical challenges we have identified. Thus, although we acknowledge our inability to perfectly sequence messages in conversational streams, we use the evidence available to members of the group themselves (i.e., message threads) as the focus of our investigation.

ANALYSIS

Measures of Participation

Data collection from all six groups resulted in an archive of 11,176 messages comprising 18.6 megabytes of text (the equivalent of about 7,000 pages of hard copy text). We present several quantitative meas-

asures of participation as context for the discourse analysis that follows. At the outset, we acknowledge that attributes countable by a computer do not necessarily correspond directly with human experience, nor does quantity necessarily imply quality. Thus, for instance, we present a computer-based estimate of readership for each group, although someone counted as a reader does not necessarily read every post. We also present several measures characterizing message traffic for each group. However, those measures do not necessarily mean that all of those messages are understood, attended to, and valued in the same ways.

Readers. People who regularly read a Usenet group typically add a command line to their log-in file indicating the name(s) of group(s) whose messages they would like to see when they invoke the news-reader program. Brian Reid (1995) of Digital Equipment Corporation wrote a program that sampled these log-in lines across a large number of computers worldwide and used the resulting data to estimate newsgroup readership for more than 3,000 of the most popular newsgroups. Reid ran his program and published the results on the Internet at regular intervals from 1993 to 1995. We used Reid's June 1995 estimates (Reid, 1995), which corresponded to the midpoint in our data collection.

As Table 1a shows, the mean membership in the support groups was estimated to be about 19,000 people across the three groups: misc.health.arthritis was estimated to have about 16,000 readers, alt.support.attn-deficit was estimated to have about 18,000 readers, and alt.support.depression was estimated to have about 23,000 readers. The mean membership across the three hobby groups was estimated to be about 78,000 people: rec.cooking.recipes was estimated to have about 190,000 readers (which skewed the mean readership upward for the hobby groups), rec.pets.dogs was estimated to have about 21,000 readers, and rec.crafts.textiles.quilting was estimated to have about 23,000 readers. We note that these are not direct measures of reading behavior. It is possible to read one or more newsgroups without specifying it in a log-in file; it is also possible to ignore newsgroups that have been specified. But we have no reason to believe that such behaviors would appear differentially in our groups; thus, the readership estimates are probably relatively reliable.

Posters. As is true of groups in the real world, active participation (measured by posting) in both the support groups and the hobby groups was distributed unequally across members. Most readers did not post at all during our 3-week data capture period. Between 13%

Table 1
Participant Characteristics of Electronic Groups

	Estimated Number of Readers	Number of Posters Over 3 Weeks	Posters/ Estimated Readers	% Who Post Only One Message	% Female Posters	% Messages by Top 10 Posters	% Female in Top 10 Posters
Support groups							
Arthritis	16,000	119	.007	45	20	27	37
Attention-deficit	18,000	274	.015	14	50	38	50
Depression	23,000	733	.032	13	40	23	80
Hobby groups							
Cooking	190,000	1,413	.007	17	40	15	70
Dogs	21,000	361	.017	14	50	29	60
Quilting	23,000	277	.012	30	80	12	100

and 45% of those who did post submitted only one message. In the support groups, the top 10 posters contributed between 23% and 38% of all messages across a 3-week period; in the hobby groups, the top 10 posters contributed between 12% and 29% of the posts. Overall, participation characteristics were similar to those of electronic groups devoted to other topics as reported in the literature (e.g., Baym, 1993; Finholt & Sproull, 1990; Smith, 1992; Sproull & Faraj, 1995).

Some scholars have claimed that women's electronic language is more positive and supportive than is men's (e.g., Herring, 1996). Also, more women participate in face-to-face self-help groups and buy self-help books than do men (e.g., Luke, Roberts, & Rappaport, 1993; Starker, 1986, cited in Grodin, 1991). However, men use the Internet more heavily than women do (Kraut, Scherlis, Mukhopadhyay, Manning, & Kiesler, 1996) and are very active in electronic support groups (Mickelson, 1997). A random sample analysis of messages from the support groups indicates that our analysis is not an analysis primarily of women's discourse; women comprised 20% of the posters to arthritis, 50% to ADD, and 40% to depression. Women were more heavily represented among the most frequent posters to each group: 37% of the 10 most frequent posters to arthritis were women, 50% to ADD, and 80% to depression.⁷ We used messages from both male and female writers in the analysis.

Posts. As Table 2 shows, the mean number of messages posted daily was lower for the support groups ($M = 74$) than for the hobby groups ($M = 99$), although all groups produced a substantial volume of material every day. The mean message length was longer for the support groups ($M = 21$ lines) than for the hobby groups ($M = 12$ lines).⁸ (Message length was calculated at 72 characters per line and excluded headers and signature blocks.) In both the support groups and the hobby groups, about 24% of the text was material quoted from previous messages.

About three quarters of all messages in the data set across both support groups ($M = 78.2\%$) and hobby groups ($M = 78.9\%$) were part of a connected discourse—either a seed message or a response to it. Seed messages evoked a mean of about four replies ($M = 3.5$ for support groups; $M = 3.9$ for hobby groups), although some seeds elicited many more replies (up to 100 and more). Most replies appeared within a day or two after the original post.

McKenna and Bargh (1997) hypothesize that the more important electronic groups are to their members, the more engaged their members will be in group discussions. They measure engagement by

Table 2
Discourse Unit Characteristics of Electronic Posts

	Mean (SD)/ Maximum Messages/Day	Mean (SD)/ Maximum Text Lines/Message	Mean (SD)/ Maximum New Text Lines/ Message	Mean Solos/ Day (% total)	Mean Seeds/ Day (% total)	Mean Replies/ Day (% total)	Mean (SD)/ Maximum Replies/Thread
Support groups							
Arthritis	10 (5)/20	24 (68)/788	20 (60)/676	3.0 (31)	2.0 (20)	4.7 (48)	2.4 (1.7)/8
Attention-deficit	60 (29)/92	20 (28)/450	15 (26)/450	8.4 (14)	9.0 (15)	42.8 (71)	4.6 (5.9)/50
Depression	151 (91)/264	18 (39)/1,222	12 (30)/1,182	28.6 (19)	27.1 (18)	95.0 (63)	3.5 (4.1)/38
Hobby groups							
Cooking	199 (140)/395	12 (18)/851	9 (17)/851	39.7 (20)	35.7 (18)	123.1 (62)	3.5 (4.8)/73
Dogs	72 (45)/140	15 (17)/241	11 (15)/241	10.7 (15)	9.3 (13)	51.6 (72)	5.4 (11.3)/116
Quilting	28 (16)/61	10 (10)/136	8 (9)/136	7.8 (28)	5.3 (19)	14.8 (53)	2.7 (2.8)/17

length of posts, reasoning that on average, longer posts signal greater involvement with the subject matter, the audience, or both. (We note that this reasoning ignores content, which we discuss below: A short personal revelation about pain may signal more engagement than a long recipe.) Although our data on message length are consistent with McKenna and Bargh's hypothesis, the entirety of our quantitative data suggest that writers in both sets of groups are actively engaged. Both sets of groups have high percentages of repeat posters (76% for support groups; 80% for hobby groups), the same relatively low percentage of unanswered or solo messages (21%), the same mean number of replies per thread (3.5 to 3.9), and the same mean percentage of material quoted from previous messages (24%). It appears that our two sets of groups are broadly similar to each other in their participation characteristics. Thus, when we discuss differences in rhetorical strategies below, we can assume those differences are not merely an artifact of differences in participation across groups.

Frequent Topics: What Do People Talk About?

Frequent topics in all three support groups center on symptoms and diagnosis, medications (efficacy, side effects, interactions), interactions with unsympathetic or unhelpful people in the real world (doctors, family and friends, teachers, employers), practical advice, and feelings (such as anger, loss, pride, pain). Occasionally, threads appear in the hobby groups about unsympathetic or unhelpful people who do not understand the posters' fascination with their hobby and threads about feelings—pride in a well-cooked meal, a well-designed quilt, or a well-behaved dog, or pain at the loss of a beloved pet. But the dominant topic across all three hobby groups is practical advice—recipes, quilting tips, dog-rearing advice.

Discourse Style and Structure

Our reading indicates that the style of messages in both the support groups and hobby groups is informal, direct, and engaged, as has been found in other studies of electronic communication (e.g., Baym, 1993; Collot & Belmore, 1996; Ferrara, Brunner, & Whittemore, 1991; Yates, 1996). Writers employ conventional devices such as run on sentences, ellipses, parenthetical remarks, exclamatories, and first and second person pronouns to approximate a conversational style. Writers also

use conventions unique to the electronic context: common abbreviations such as ROFL (rolling on the floor laughing) and emoticons, such as ": -)", the smiley.

Fast-paced, multithreaded discussion is characteristic of both the support groups and the hobby groups and is also common in other electronic discussion groups (e.g., Shank & Cunningham, 1996). In the example from the arthritis discussion group below, the original seed message from Laurel (we have replaced real names with fictitious ones) received replies from eight people in a 3-day period.⁹ Part of Laurel's message is enclosed in Dan's reply (shown by the presence of line insertion points, >) to give context to his response.

From: [Dan]

Subject: Re: Remission?

Previously [Laurel] wrote this:

> After taking prednisone for about 9+ months and then being
> on Plaquenil for only 2 weeks, I had to stop taking the meds.
> Insurance, etc., all the usual reasons. I haven't been taking any
> meds for a bit over two weeks and I can't remember when I
> didn't have this little pain. I don't limp, my hands aren't
> locking, I'm not really swelling, I'm not stiff, etc.
> Is this remission and if it is how frequent does this happen
> when meds aren't being taken? I'm not even taking any form of aspirin
or Tylenol.
> Confused, befuddled, but happy,
> [Laurel]

i was originally diagnosed with RA in 1988, though i had it for a while then. i got out of the service in 1990, and couldn't afford the auranifin [oral gold], the indocin, and prednisone [although i probably could have afforded that—??] anyway, i went into remission then, and stayed that way until this summer, almost 5 years. i was stiff every once in a while, especially when the weather changed, but otherwise NOT ONE PROBLEM!!

good luck, and may the gods continue to bless you.

[Dan]

Discourse Style and Structure in Support Groups

Electronic support groups organize discussion around a single illness or problem. The participants are a rich mix of people. They may

share a diagnosis, but their personal experiences vary tremendously—in the particular constellation of symptoms they experience, the severity of their symptoms, their understanding of how they first became ill or began to suspect they might be ill, their certainty that they are in the right place (that their diagnosis matches that of other members), the causes they attribute to their illness and its effects on their daily lives, the treatments they have tried and are willing to try, and the therapeutic effects of treatment and side effects.

Whereas variation in individual experience is important in shaping the rhetorical situation, so too is the shared experience of communicating in a particular medium with particular properties. The technical properties of electronic support groups that we have described above confront all members and, we believe, influence the structure of their discourse. In particular, participants must make themselves heard in a situation in which no one knows that they want to speak or has any obligation to notice that they have spoken. And, to be appreciated as conversational participants, they must contribute to conversations in which they have not been specifically invited to participate, without being able to draw on institutionally conferred authority as justification for speaking.

One frequently occurring discourse feature is a question-and-answer sequence in which questions and answers are anchored in personal experience. Consider, for instance, this example from alt.support.depression:

I sometimes wonder why a dr. prescribes one med over the other. . . . For some reason, the first session I had with my new dr. he was pushing effexor on me.

Personal narratives have been previously described by Linde (1993), and our findings are consistent with her reports. The personal narratives we observed were typically short, coherent, and pointed, fixing blame and person attributions such as "I just got kicked out of another therapy group today—because of my bad temper" (from alt.support.depression). These narratives sometimes contained blunt or graphic remarks such as "the first time I hurt myself (cigarette burns) I was ten, and I seem to remember now thinking that I was numb, would I feel physical pain if I burned myself, or was I numb inside-out" (from alt.support.depression) or detailed factual material: "I just interlibrary loaned an article titled 'Self-esteem in Recovered Bipolars,' which appeared in 'the British Journal of Psychiatry,' De-

ember, 1993, vol. 163, pages 755-762, authored by Pardo et. al" (from alt.support.depression).

As these examples suggest, narratives in the support groups are typically straightforward and unambiguous, unlike oral conversation on similarly sensitive subjects with known acquaintances (Bavelas, Black, Chovil, & Mullett, 1990). An exception is the use of humorous sarcasm, which occurs when members of the group wish to castigate someone whose comments they find objectionable:

>I hear leeches, copper bracelets, and yak butter also work real well.
Quack, quack. (from alt.support.arthritis/misc.health.arthritis)

>must you use vulgarities. My little sister reads [this group].
Okay, lemme see here: It's okay to discuss sexual abuse, cutting, and suicide plans—often in graphic detail. But we're not supposed to swear? PUH-LEEZE!! (from alt.support.depression)

For all of that, he's not an obnoxious child, merely an
uninformed adult who refuses to acknowledge when he's out of his
depth, and
makes up information to cover it.
In short, he fits the profile of a HUGE number of internet users.
(1/2 :-), 1/2 :- () (from alt.support.attn-deficit)

The question-answer thread structure alleviates the chaos and ambiguity that might otherwise ensue given huge social diversity and a continuous flow of messages into the group. By injecting a question, anyone can signal a new topic. By replying to that question within the thread, anyone can join that conversation. Repetition of the title of a thread in the subject line of the header allows readers to follow multiple simultaneous conversations. The result is a loose conversational sequence in which both writers and readers can attend to particular parts of their experience and give or receive help in those specific domains.

Creating Legitimacy

Although the style and structure of electronic support groups facilitate coherent written conversation, participants who inject a question still must convince others that they are deserving of attention. Participants signal that their contribution is legitimate partly by writing about legitimate topics. The group name is the most obvious

means of defining legitimacy: One would not expect to see questions about programming languages in a depression group, for example. Groups also develop written standards specifying the purpose of each group and standards for participating in it appropriately. These standards are part of each group's FAQ¹⁰ (frequently asked questions), a message that is posted to the group on a regular schedule (e.g., weekly or monthly).

As we have indicated, a question is the most frequent form of seed message. Although occasional questions blatantly bait the group or seek negative attention, most askers apparently seek positive attention.¹¹ In oral conversation, people can use the pitch and loudness of their voice to get others' attention. In electronic support groups, they can use catchy headlines in the subject line of the header. For instance, one message from the arthritis support group began with the subject heading "Shoes," one from the ADD group began with "My story—my pain—no answers," and one from the depression group began with "Devilish doctors." Interpreting these message headers as signs of legitimate membership depends on understanding something of the issues that trouble group members. For instance, people with arthritis have trouble finding shoes that provide comfort and allow mobility. People with ADD and depression are frequently frustrated by their doctors' inability to provide quick, effective answers for their problems. These illnesses are diagnosed symptomatically and patients often experience a series of medication regimes in search of one that works. The lack of certainty and lack of faith in doctors portrayed in the last two headings are likely to be seen by other group members as readily understood, legitimate topics.

Legitimate claims also contain signals that they come from legitimate people—that is, people who have the right to ask questions and make claims on the group's attention. Most people signal legitimacy in their seed messages by making explicit claims that reference membership in the electronic group ("I belong to this electronic group") and membership in the problem group ("I belong to the group of people with this problem"). Even frequent posters, who presumably would be recognized as legitimate, include membership claims 80% of the time when asking questions. Electronic group membership is signaled by behavioral statements (such as how long the poster has lurked or read the group before posting) or references to the group's shared history (such as comments on past posts or posters). Membership in the problem group is signaled by behavioral statements (de-

scription of one's symptoms, drug regimens and side effects, description of one's interactions with medical authorities) and by diagnostic statements ("I have been diagnosed with X").

First-time posters may particularly feel and face the challenge of legitimating their claim for the group's attention:

Hi. I've been reading/lurking here for a few months. I've been diagnosed with AS and have been taking anti-inflammatories since May. I am wondering what type of side effects others have had to these meds besides ulcers.

Currently I am taking Lodine 1200 mg/day. I am wondering if the swelling I've been having with my eyelids has anything to do with this drug. Any thoughts? Also, any other common side effects?

I also want to thank everyone who's responded about depression and relationships. Reading this newsgroup has really helped me—I don't feel like I'm the only one out here with this thing you can't see, but can definitely feel. I'm 29 years old and I've had a hard time explaining to family and friends why I hurt, especially at a young age! The threads about depression and relationships have helped me explain to my husband what I'm going through. Thanks again everyone! (from alt.support.arthritis/misc.health.arthritis)

This poster first claimed membership in the electronic group through a statement of behavior ("I've been reading/lurking here for a few months"). She also claimed membership in the problem group ("I've been diagnosed with AS") and amplified that membership claim with several behavioral statements about medications and symptoms. After making her request, she reinforced her claim of membership in the electronic group by directly acknowledging other members. She thanked those members who had posted on a particular topic and explained how those posts had been helpful to her.

Across the three support groups, 80 questions received no replies posted to the group.¹² Almost all of them lacked the legitimating claims of membership in the electronic group. Many of the ignored messages were simply a request for information, analogous to a simple database query:

Subject: Environmental Toxins—Lead

Looking for recent studies looking at blood lead levels and ADHD/behaviors. Several studies are cited in Barkley's 1990 book, I would appreciate any help in finding additional studies.

Thanks (from alt.support.attn-deficit)

Other ignored posts included personal information about the poster along with the request for information (e.g., "Has anyone had a traumatic experience trigger their Reiter's? . . . I believe a rear end collision triggered mine after being in remission for over a decade"). These are analogous to more complex, conditionalized database queries. Some unanswered questions acknowledged that they were questioning human beings rather than databases ("Does anyone know . . . ?" "Can anyone tell me . . . ?"). But questions that did not explicitly acknowledge the common bond of electronic group membership as well as problem group membership were likely to be ignored.

First-time posters to the hobby groups identified themselves much less frequently than did first-time posters to the support groups. All messages containing *lurk*, *new*, *first time*, and their variants were identified through a text search program and read to verify content. There were 5.5 times more messages in the support groups than in the hobby groups identifying themselves as first-time posters, another indication that a poster's relationship to the electronic group is less salient rhetorically than in the support groups. The only self-identified newcomer to the cooking group began his first post by describing himself and requesting recipes. The post concluded with, "Please email me, I don't follow this newsgroup." This message generated nine replies complaining about the inconsiderate, boorish poster's lack of respect for the group and for its members. It may be rhetorically unnecessary to explicitly claim membership in an electronic hobby group, but it is unwise to explicitly disavow it.

Offering Advice: Establishing Authority

Although legitimating their claim for attention is a central task for people who ask questions, legitimacy is less problematic for people who answer questions because most mail programs automatically provide external legitimating cues for answers. Thus, the challenge for answerers is not legitimacy, but authority. If people want to be believed, how do they warrant the authority of their answers? As in any rhetorical exchange, the properties of these answers—whether they are appropriate, sufficient, and relevant—depends on the identity of both questioner and answerer, on the relationship between them, and on the composition of the question and the answer. Moreover, although a writer is responding to an individual question, many people may be reading the answer. Thus, even if an answer appears

authoritative to some readers, other readers may reject it. On theoretical grounds, one would expect that such readers would challenge the answerer, indicating that the answerer has not met the burden of proof for the claims she or he is making. Or readers might take up the burden of proof by introducing counterclaims.

Most answers contain scientific information, personal information, or both. One might expect that answers warranted by scientific authority would almost always be seen as relevant, if not always appropriate or sufficient. Furthermore, because there are fairly well-understood norms for scientific research (at least among posters in the support groups who have personal reasons for caring about research procedures and outcomes), challenges to claims warranted by medical or scientific research take on a relatively small number of topics related to the credibility of that information—topics, for instance, such as the use of control groups and placebos, the details of the treatment involved in the research, and the characteristics of the research participants.

Evaluating answers based on individual experience is more complex. Given the inherent epistemological weakness of answers based on personal experience, they may be more likely than advice based on scientific knowledge to be seen as problematic in terms of appropriateness, relevance, and sufficiency. In addition to their limited generalizability, answers based on personal experience may vary more in their presentation (appropriateness), may be interesting to some readers but not to others (relevance), and may be less likely to provide a well-developed answer to the original question (sufficiency). As we show below, their weaknesses are well-understood. On the other hand, stories based on personal experience occur frequently, their writers are usually greeted warmly, and they tend to evoke “Me, too!” responses from other readers. Because answerers are telling their own stories within a group in which the experience of other members overlaps with that of answerers, personal stories will almost always be seen as relevant to readers. The challenges answerers face will typically be of one kind—the kind that challenges the applicability of the answer to other readers. Despite their shared experience, the variability of human experience is enormous, and that variability is likely to be the source of challenges to the answerer. Avoiding challenges about the reach and importance of their personal experience may increase the likelihood that authors will establish the limits of their experience-based answers by ending with Internet jargon, such as “YMMV” (your mileage may vary) or “My .02” (my two cents).

Answering questions. As noted above, answers to questions about diagnosis and treatment frequently are warranted through appeals to scientific expertise, warrants that are likely seen as appropriate and relevant, if not always sufficient:

From: [Martin]

Subject: Re: Some Advice would be appreciated

In article xx, [Richard] wrote:

[snip]

>A few people I have spoken to say it is a bad idea—that Ritalin >will make a zombie out of her. BUT is this true? If anyone has >any info about this drug or its side effects please e-mail me..

>[Richard]

Actually, recent research has shown that stimulants improve performance on complex tasks. Specifically, methylphenidate (Ritalin) has been shown to increase persistence of ADD boys after exposure to failure experiences. In this study, medicated subjects completed more solvable puzzles after exposure to an unsolvable puzzle than did their unmedicated peers. (Milich et al., 1991) In another study, it was shown that psychostimulants improve ADHD . . . performance on regular school measures such as quizzes and tests. (Evans & Pelham, 1991) Stimulants as treatments for ADD have been vigorously studied for several decades now.

The scientific community doesn't believe that stimulants turn children with ADD into zombies. Find a good doctor, someone knowledgeable in the treatment of ADD whom you feel comfortable with. Make sure that your child's doctor answers all of your questions. If your child is diagnosed as having ADD, and you choose not to medicate, make sure that you are making an informed decision after weighing all of the evidence. You could ask the doctor for references if you'd like to do some research. If you look on medline you'll find many clinical studies on the effectiveness of Ritalin in ADD children. Additionally, you may want to check out the studies that followed unmedicated children with ADD to adulthood and compared their educational, vocational, and mental health status to a control group without ADD.

Good luck. Deciding whether or not to medicate isn't easy. Knowing that your decision was based on good, accurate, current information will give you piece of mind either way.

[Martin] (from alt.support.attn-deficit)

The reply above begins with a reference to scientific expertise (description of and references to two research studies) to warrant the claim that stimulant medication does not "turn children with ADD

into zombies." In the last part of the post, the writer shifts tactics from supplying scientific advice that might be directed to anyone to advising the reader directly in a voice that blends mild imperatives ("find a good doctor whom you feel comfortable with," "make sure") with mitigation ("You could ask," "if you'd like," "If you look," "You may want to check out"), demonstrating his skill in adjusting authoritative claims to presumptions about the reader (i.e., that the reader is an adult rather than a child and, as an adult, must be spoken to respectfully but may nonetheless be unaware of useful sources of information or strategies for interacting with a doctor).

Answers also mix references to professional expertise and personal experience, and the caveats noted above also tend to appear in these messages, an indication of the overlap with messages that rely entirely on personal experience:

Ok here's my two cents, partly learned because I'm a med student, partly because I've been on all these drugs. (from alt.support.depression)

Authors may also rely exclusively on personal experience, especially when questions explicitly ask others about their experiences or when questions touch on feelings, life styles, or relationships.

>I recently acknowledged to my RD that. . . pain is simply going
>to be part of my life. His response was, essentially, not at all . . .
>that it is our job to stop the pain . . . Well, excuse me, dr., but I
>think I might be more of the realist between the two of us. I
>have experienced the ups and downs of the uncertainty of this.

If you don't tell your doctor _how much_ you hurt, he's not going to be able to just magically figure it out. It took me a couple years to figure this one out. Breaking down and crying about how much it hurt got the point across. Wish I'd done it sooner. (from alt.support.arthritis/misc.health.arthritis)

Because the authority of any answer can be qualified or challenged by any other reader in another message, establishing the authority of a message does not rest exclusively with the author of a message. Here, a second author takes on part of the burden of proof, adding new information to the previous statements:

From: [Lou]
Subject: Re: Some Advice would be appreciated
Date: 9 Dec 1995 01:34:04 GMT

[Martin] wrote:

>The scientific community doesn't believe that stimulants turn
>children with ADD into zombies.

Just a note, though: sleep deprivation, which is a possible side effect of ritalin, could certainly make someone quite "zombielike." (from alt.support.attn-deficit)

Challenging claims. Warrants are challenged if they seem weak. For example, a weak scientific warrant may be challenged by a request for citations. In the following example, it is important to note that the challenger seems to doubt the sufficiency of the report presented by the initial answerer, not the relevance of scientific information:

>It works for me and there's enough evidence in the literature
>that it's real . . .

Can you post a few of those citations? (from alt.support.arthritis/misc.health.arthritis)

Authority warranted by tradition also may be challenged if it seems weak. For instance, in response to one message endorsing traditional acts such as love, patience, and support as a cure for ADD, another poster points out that this answer is not sufficient and (sarcastically) asks for scientific support for the writer's claim:

>I am going to use a centuries old method with a guaranteed
>efficacy [in treating ADD]: Love, patience, support.
'Love, patience, and support' have no guarantee of efficacy in the treatment of ADD. However I'd be interested in seeing the study that you used to conclude that it did. (from alt.support.attn-deficit)

An unwarranted claim, which can be either inappropriate, irrelevant, or insufficient, also may be challenged based on the absence of scientific data:

>The mercury in amalgam fillings may be causing your
>depression . . .

There have been many claims that the mercury found in amalgam restorations can cause many different diseases and syndromes. As best as can be determined as of this date, there have been no good, conclusive studies which support these claims. The American Dental Association has taken this position, which has also been taken by other health organizations. There are known cases of allergic reactions to mercury, and in these cases the amalgam restorations should be definitely re-

moved. Other claims have been only anecdotal and without sound scientific basis. (from alt.support.depression)

Readers rarely challenge warrants based on personal experience, although, as noted above, they are quick to challenge generalizations from it. In theoretical terms, writers who challenge warrants based on personal experience are pointing out the insufficiency of personal experience as a basis for influence:

the rule is: YMMV. 'your mileage may vary' we're all different, no one thing will work for everyone. once you start to insist it does, whether b-vitamins, god, or cognitive therapy, we'll regard you as a charlatan. (from alt.support.depression)

The authority of a message can be reinforced as well as challenged by other group members. The answer in the ADD exchange quoted above elicited praise from another group member in a subsequent message to the group:

Mr. Long . . . Your post was presented in a non-soapbox, informative, positive manner. Thank you. I hope to hear more from you in the future. (from alt.support.attn-deficit)

Likewise, the answer challenging the traditional warrant for the efficacy of love, patience, and support elicited this response:

Max, I'm really starting to like you, and we've just met! I appreciate your ability to ferret out the trite euphemism. (from alt.support.attn-deficit)

Authority warrants in the hobby groups rarely rely on professional expertise. In principle, people could cite experts such as professional chefs, cookbook authors, or quilt show judges. But they do not. Occasionally, people cite professional breeders or veterinarians in the dogs group but in all three hobby groups, the dominant warrant is personal experience. Challenges to the authority of answers to the hobby groups are rare. Neither the quilting nor cooking groups contained any such challenges. People often described personal experiences or suggestions that differed from those described in earlier posts, but they never challenged the authority of others' experiences. The dogs group contained occasional challenges to personal expertise based on professional expertise as, for example, when one person's

recommendation about hearing tests for dogs was challenged by another post that cited a reputable breeder as his authority. But, in general, personal experience was the dominant basis for authority. Praise for replies was frequent in the hobby groups but, perhaps because only one kind of warrant was so dominant, praise was always directed to the subject matter of replies (e.g., "good suggestion,") instead of to how replies were warranted.

We would argue that, despite the passion of some hobbyists, the topics they were discussing were not as disturbing or as psychologically salient as the topics discussed by individuals in the support groups. The personal stories they heard were more likely to be entertaining, useful, or simply more interesting in a positive way than were the personal stories presented in the support group. Thus, questions of the validity and value of these personal stories never arose; whatever was said was judged to be sufficiently authoritative that the tacit premises underlying their comments were rarely challenged.

LEGITIMACY AND AUTHORITY: REINFORCING COMMUNITY

As legitimacy and authority are established at the interpersonal level using the means we have described above, the individuals participating in an electronic group can easily come to feel like members of the group. Subsequently, they are susceptible to the influence of group identity, communal feeling, and community standards; group members bring those standards and feelings to bear in their contributions and their reactions to others (Dawes, Orbell, & van de Kragt, 1988; Hogg & Hains, 1996; Hogg & McGarty, 1990). For instance, the medical student cited above warranted his contribution by appealing not only to his knowledge of medicine, but also to his feeling of obligation to the group:

I wish you luck, and if I can answer anything else (if you trust the opinion of a lowly med student!!). I would be more than happy to help. I've gotten a tremendous amount from asd, and am pleased to be able to return something. (from alt.support.depression)

Legitimacy and authority arising from group identity are especially evident when someone posts a message that violates group norms or standards of discourse:

First off, please take your religion to alt.religion . . . this is a place where ill people can support each other, and discuss problems of importance to themselves (from alt.support.depression)

This excerpt reveals both legitimacy and authority in that the writer displays a clear sense that he or she can make an authoritative statement about group norms.

As in real world groups, the right to speak, to answer, and to challenge arising from group identity is highly correlated with cohesiveness or feelings of community in the electronic group. And as in real world groups, community develops in electronic support groups as a result of participation and positive responses to that participation (Cummings, Sproull, & Kiesler, 1998). A common response of participants in the electronic support groups is, "I do not feel alone." As one writer said in a post to ADD, "It sounds so familiar! It doesn't remove the pain, but it helps to hear from others with the same (and worse) problems." Or, as another writer in the ADD group put it:

One of the things that keeps me going is that I'm not alone. It's just nice to know that people here know what it's like to go through the same thing I have, and when you've gone through much of life being the "weirdo" with people who just can't figure out why you think or do things the way you do, it's nice to know that people here do understand because they've experienced it firsthand.

Similarly, in the arthritis group:

I'm so glad I found this news group . . . it doesn't take away the pain but I'm not alone . . . Now I found this news group and can gain from the knowledge and experience of people who really UNDERSTAND what it feels like to live with this disease. My thanks to all who share in this forum. I feel so much better knowing you're there.

And in the depression group:

And I am so grateful for this group.. it means so much to me tho I can't always express it..whenever things get really bad I login and remember I am not alone.

Based on a text string search, we found that 39 different writers in the support groups explicitly wrote, "I am not alone," compared with only 3 writers in the hobby groups. This is, of course, only the most

minimal comparison possible and in no way does rhetorical justice to how writers express their feelings. But it does give some sense of the magnitude of the difference in people's expressions of these feelings.

Discourse analysis does not allow us direct access to readers who do not post. Thus, although our claims about people who only read are speculative, it is possible that the "I do not feel alone" responses noted above may also be true for readers who do not post messages.¹³ Although each reader sits alone at his or her terminal, every message that legitimates a request by saying, "I read this group," references an experience that each reader shares because each reader also reads this group. Each message legitimating a request by saying, "I have X [disease, symptoms, problem]," also references a shared experience, albeit perhaps less directly, because each reader is somehow confronting the disease, symptoms, and problems. We would argue that even these isolated readers experience a vicarious sense of legitimacy and authority that stems from their continued, albeit invisible, involvement in the group.

Readers also may connect with the personal experiences described by those who post to electronic support groups. Despite the acknowledged limitations of personal experience as a source of influence, our study indicates that messages warranted by personal experience occur frequently and are well-received, as long as they do not overstate their applicability. The rhetorical strength of messages based on personal experience comes, we believe, from their relevance to every other reader. Whereas not every reader may be familiar with the particular scientific expertise used as warrants, every reader can connect to descriptions of personal experience that are so used. If a reader has not personally had a particular experience, he or she has had a similar one or a different one or has worried about or hoped for one. Whereas self-help books typically rely on third-person descriptions of experience, the first- and second-person forms used in these electronic texts can make it easier for readers to connect with the experiences that are being described.

Writing about experience (i.e., I, me) that warrants replies may also connect writers to readers who have not posted. In a face-to-face support group, when someone offers personal advice to another, saying "You . . ." everyone in the group can see the specific person to whom the *you* refers and know that they are not that person. Although we have no empirical evidence, it is plausible to assume that when a reader reads advice couched in the terms of informal, person-to-person speech, the reader is likely to take the advice personally because

there is no other you physically present to whom the advice could refer. Whenever a writer responds to a seed message saying, "Hang in there. You are not alone," or "We are here for you," every reader can read that as a personal message.

Despite certain differences in their rhetorical practices, the hobby groups also generated expressions of good will to other group members. These were least apparent in the cooking group, perhaps because it was so much larger than were the other groups or because participants' identities were less tied up in cooking than was the case for quilting or owning dogs. Nevertheless, in all the hobby groups, people were willing to help others through sharing their experiences and advice and expressed gratitude that the electronic group was a place where others understood them and shared their interests. For example, one member of the quilting group said, "Thanks to everyone who answered my questions about quilt pricing (and, for that matter, any question I have had). This is a great group!"

CONCLUSION

People with chronic illness or problems experience deprivation, need, and pain; they sometimes lack information and emotional support. Although electronic support groups are large, public, and disembodied, they offer such people access to direct, open, supportive conversation. Members meet the rhetorical challenges of legitimacy and authority in their posts and, by doing so in mostly positive ways, they not only exchange information but also create community. In turn, community builds a clearer definition of legitimacy, defines what counts as acceptable discourse, and reinforces the authority of individual writers. Electronic support groups share some characteristics with other kinds of electronic groups, but they are distinctive in their use of electronic group membership as a legitimating strategy and in their use of both expertise and personal experience as warrants for advice.

We have emphasized properties shared by support groups, but, of course, the structure and content of the discussion in each group varies with the illness that is the focus of the group. In particular, a substantial portion of the discussion in the depression and ADD groups concerns the stigma of these illnesses, which are poorly understood by the public and sometimes even by medical personnel. Participants

face many problems in dealing with the expectations, demands, and criticism of people who do not share their problems—whether they are friends, family members, or employers. The invisibility of these illnesses, uncertainties about medical causality, and the variable efficacy of treatment options all create openings for challenges and disagreements about diagnosis and treatment in these groups, resulting at times in a highly argumentative discourse. Such complaints are less common in the arthritis group because arthritis is better understood medically and is not linked to character flaws or bad behavior in the public mind.

Apart from the variation in content of the groups, it is noteworthy that despite the relatively novel circumstances of their discourse, the discourse itself does not depart discernibly from oral and written patterns of conversations: People enter politely, ask and answer questions, and challenge controversial or incomplete answers. Furthermore, over time, people learn and act to enforce group norms and develop a sense of attachment to the group. What may be most interesting about our findings is that these discourse patterns appear without any of the props generally considered important in face-to-face conversation and without meeting the standards generally associated with carefully thought-out prose. The similarity of electronic discourse to more traditional forms of discourse is a testament to the flexibility of people's ability to convey their personalities and personal problems as well as their points of view in different rhetorical situations and technological environments.

Despite many similarities between electronic and face-to-face discourse, there is at least one major structural difference between these groups that we have not examined in this article: the permeable boundaries of electronic groups. In face-to-face groups, features such as membership fees, membership requirements, and written constitutions formally define group boundaries and acceptable standards of behavior. Clearly, such features are not present in electronic groups. Further research will be needed to determine precisely how group permeability influences discourse patterns in electronic groups.

Discourse differences among the three groups we studied also suggest the need for more comparative research both within Usenet and across other kinds of electronic forums. Private mailing lists or moderated discussion groups, for instance, may exhibit different discourse characteristics. For example, if a group is private, members may not feel the need to reference their own group membership so frequently. It will also be interesting to investigate the discourse

processes of legitimacy and authority in electronic groups from organizations or communities with recognized hierarchies and experts. A growing number of electronic support groups are moderated by medical and therapeutic professionals. Will ordinary people legitimate and warrant their messages differently if professionals are also participating? How will the interactive discourse change when professionals join the discussion?

Finally, is people's health improved through their participation in electronic support groups? One way to pursue this issue might be to ask people directly about how their electronic group experiences affect their well-being. Alternatively, these questions could be embedded in a longitudinal or experimental design. We might hypothesize, for instance, that if one's real world social circle has been reduced by illness, the availability of friends, even invisible friends, on the Internet might have a more positive effect. If we use the kinds of research performed in this article and suggested in this conclusion to help us understand the processes that occur when writers and readers participate in electronic support groups, we could document the health benefits that accrue to support group participants through the realization that "I am not alone."

NOTES

1. *Discourse community* has become a somewhat controversial term in that linguists point out that the term implies more homogeneity of language patterns than typically exist within a particular social or regional group. However, our usage is supported first by our goals, which focus on content across groups and rhetorical issues across groups, rather than on speech communities, which are defined by linguistic features (B. Johnstone, personal communication, May, 1998). Second, our usage of discourse and discourse analysis is consistent with the ideas presented by Killingsworth (1996).

2. Nearly 25% of U.S. adults have social networks of size 0 or 1 and thus have inadequate or marginal counseling support (Marsden, 1987).

3. These estimates are based on nationally organized efforts such as Alcoholics Anonymous; they exclude locally organized and informal efforts.

4. The Usenet support groups we analyze in this article derive from a file-sharing system conceived in 1979 by Tom Truscott and Jim Ellis, computer science graduate students at Duke University, for a Unix users group (Usenet History Archives, August 1997, <http://communication.ucsd.edu/bjones/Usenet.Hist/index.html>). With home-made modems and Unix programs, they invented an automated newsletter, *News*, to replace the group's paper newsletter. *News* was designed to allow all interested persons to read the discussion and to insert a comment. Anyone interested in a particular topic

could post messages about that topic and read what others posted. Anyone could start a new topic, and if enough people were interested, they could become a separate newsgroup. Computer-oriented, entertainment, and hobby newsgroups (NET.chess; NET.cook; NET.vwrabbit) were popular from the start. Usenet members shared ideas about how to improve the system and about what the rules should be for creating new newsgroups (voting), for excluding members (none), and for apportioning control (readers would control what they received). At the outset then, Usenet was not simply a computer network but a real-life discourse community possessing a broadly agreed on set of public goals and expectations, participatory mechanisms to provide information and feedback, structured communication, and some specific lexis (Hauben & Hauben, 1997).

5. Indeed, in the early years of Usenet, contributions to newsgroups were called *articles*.

6. By inspection of the text, we know that some fraction of messages we coded as *solo* (because they referenced no other message in their header) were probably intended by their sender as replies and so should have been incorporated in threads. We did not do so, however, to avoid subjective interpretation of message intent. Moreover, other messages that appeared as solos in our archive were posted late in the collection period; some of them may have generated replies after the collection period ended and would have been categorized as seeds had the collection period been longer. Our analyses may therefore overestimate the number of threads and underestimate thread length. Any such tendencies, however, are consistent across groups and thus do not affect comparisons between groups.

7. The relatively high proportion of women in the depression group may be accounted for by the disproportionate incidence of depression in men and women. Women have a 20% chance of experiencing an episode of depression during their lifetime, whereas men have only a 10% chance of incurring depression (Nolen-Hoeksema, 1987).

8. We present these data for descriptive purposes only. We did not randomly sample our groups from the complete population of support groups and hobby groups; hence, we cannot use inferential statistics to estimate population characteristics.

9. Our analysis draws on texts for which the creator, the individual Usenet poster, holds the copyright. However, according to the fair use doctrine, copyrighted text may be reproduced if the purpose for which it is reproduced is noncommercial, if it is used for education or research, or if other special conditions are met. (See Rosenoer 1997, for discussion of the fair use doctrine in traditional and electronic texts.) These conditions are consistent with our purposes in this investigation. In addition, we have deleted all user names and e-mail addresses and replaced the real names of posters with fictitious names to protect the identity of posters whose messages we have excerpted.

10. FAQs are a common mechanism for explaining the purposes of Usenet groups as well as for presenting basic information about the groups' topics. In addition to being posted to the newsgroup with which they are identified, FAQs appear on newsgroups such as sci.answers and news.answers, which are designed to inform readers about the existence of groups focused on particular issues. Although search engines such as those available on the World Wide Web have, to some extent, supplanted the functions of the answers newsgroups and many FAQs now contain references to websites, at this writing, the newsgroups still are being used and new copies of FAQs are submitted every day.

11. Posts on illegitimate topics may be ignored or may receive negative attention in the form of chastising or complaining responses. The two most common illegitimate claims for attention in the support groups are commercial advertisements and religious proselytizing. In extreme cases of the former, other posters announce that they have sent requests to the initiator's system administrator demanding official punishment. In extreme cases of the latter, they announce that they have established kill files or filters to block posts from the offender.

12. We have no way of knowing if they received private e-mail replies.

13. In a random sample survey of members of one support group (not one of the three described in this article), 53% of respondents who had not posted to the group reported that one of the positive experiences of group membership is "feeling I am not alone" (Cummings, Sproull, & Kiesler, 1998).

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