Psychological Sense of Community within Mediated Communities: The Case of the News Blog

A THESIS
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF ARTS

Adviser: Dan Sullivan

June, 2010

Acknowledgements

I would like to thank my adviser, Dan Sullivan, for his invaluable encouragement and

support throughout my thesis. His guidance has allowed me to develop as a student and

as a researcher. I would also like to thank my committee members, Brian Southwell and

Michelle Everson for their support in the completion of this project.

Dedication

This thesis is dedicated to my parents. Your unconditional love and support have made me the person I am today. Thank you for being such strong role models, instilling in me the drive to never give up, and the confidence that I am capable of succeeding wherever life may take me.

Abstract

Researchers agree that communities are a valuable source of positive outcomes for individuals and society, however much debate revolves around the question: what is a community? Community psychology research offers the suggestion that a psychological sense of community (PSOC) among individual members of a group is at the heart of any community. The current study builds upon the McMillan and Chavis (1986) PSOC model, applying their theory and Peterson and colleagues' (2008) measure to the highly anonymous, mediated environment of news blogs. In addition, this research examines several individual-level variables that are hypothesized to be related to PSOC online in an attempt to better understand community functioning and formation. An analysis of ninety-three members of three major news blogs revealed that PSOC does form online, although at moderate levels. A regression analysis revealed that individuals' level of identification with the blog, their history reading the blog, and trust in members of the blog were all significantly and positively related to PSOC. In addition, the motivations for using the blog of personal fulfillment, information seeking/media checking, and expression/affiliation were significantly and positively related to PSOC. This research suggests that understanding the variability in PSOC, as explained by these individual-level characteristics, has significant implications for the journalism industry and society as a whole.

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INTRODUCTION

In 1966, Nisbet identified the community as being "the most fundamental and far-reaching of sociology's unit ideas" (p. 47). After several decades of community psychology research, Chavis and Newbrough (1986) concluded, "a healthy community system is one that can resist social, psychological and physiological problems, in addition to enabling individuals and their collectivity to grow to their maximum potential" (p. 338). To Schuler (1996), "communities are the heart, the soul, the nervous system, and the lifeblood of human society...Communities can help get things done: People are infinitely more capable when they work together than when they work on their own" (p. 1). Researchers seem to agree that communities are a crucial part of society, yet, what exactly is a "community"?

Different bodies of research, from economics to sociology, have different ways of conceptualizing community. The current study adopts a community psychology approach, which is a subfield of psychology that examines the relationship between individuals and their environment in order to "understand and to enhance quality of life for individuals, communities, and society" (Dalton, et al., 2001, p. 5). Community psychology developed as a field beginning in the 1950s and 1960s in response to attempts by clinical psychologists and psychiatrists to deal with individuals displaying "deviant behaviors" that did not conform to traditional white, middle-class societal expectations (Rappaport, 1977). Community psychology emerged under pressure to acknowledge that individual differences are inherent in any large society, and thus has as its core values,

"respect for human diversity, the right to be different, and the belief that human problems are those of person-environment fit, rather than of incompetent (inferior) people or inferior psychological and cultural environments" (p. 22).

Community psychologists explain that "a community is a subgroup within society" and that "community psychology is concerned with the well-being of many different subcommunities within the social order" (Rappaport, 1977, p. 2). In order for a group of individuals to rise to the level of "community", they believe that its members must feel a psychological sense of community (PSOC), or "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together"(McMillan & Chavis, 1986).

PSOC is valuable to the individual, the community, and society as a whole, and is thus desirable among community members. For the individual, it has been found to inform social capital (Pooley, et al., 2005; Perkins & Long, 2002); provide social and emotional support (Blanchard & Markus, 2004; Walther, 1996); allow the individual to explore and develop possible identities and relationships (Blanchard & Markus, 2004); provide feelings of companionship, affiliation, and trust (Blanchard & Markus, 2004; Rheingold, 1993); and improve self-esteem (Ashforth & Mael, 1989). PSOC formation has also been found to improve group cohesion and cooperation (Ashforth & Mael, 1989), supporting collective action, problem solving, and knowledge sharing within the

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community as well as social and political participation outside of the community (Zuniga & Rojas, 2009; Finholt & Sproull, 1990; Chavis & Wandersman, 1990, McMillan & Chavis, 1986). Finally, PSOC formation among members of a community has been shown to increase satisfaction in, and commitment to that community (Cameron, 2004; Cheung & Lee, 2009; Burroughs & Eby, 1998; Blanchard, 2004).

The current study seeks to extend PSOC research in two ways. First, it attempts to build upon the original PSOC framework developed by McMillan and Chavis (1986) by supporting a PSOC measure that is both empirically and theoretically sound.   Second, this study focuses on news blogs, which are online groups that are entirely mediated. Despite the fact that the computer-mediated communication has become a prevalent aspect of modern interaction, few researchers have investigated whether PSOC may form in contexts that lack face-to-face interaction. As technological advances allow people to easily communicate across vast distances, news blogs have become an important part of the journalism industry. Audiences now have the ability to choose from a seemingly infinite number of information sources, no longer constrained by the traditional media filters. Therefore, the current study examines the extent to which PSOC may form among members of news blogs, the individual characteristics that are associated with PSOC formation in a mediated environment, and discusses the valuable implications of understanding PSOC in this mediated environment.

LITERATURE REVIEW

Defining "community"

While "community" is a highly recognizable and frequently used term, it is an ambiguous concept.   As Fernback (1997) points out, "community is a term which seems readily definable to the general public but is infinitely complex and amorphous in academic discourse" (p. 39). Researchers have yet to settle on a common definition, model, and way to measure. It may refer to different things, depending on the researcher and the context in which it is being used, leading to a great deal of variance throughout the history of community scholarship. Additionally, the idea of being a "community" carries with it numerous positive implications, including social action and well-being. Consequently it has come to be an over-broad, and overused term. Over 50 years ago, Hillery (1955) identified ninety-four different definitions of community. Since then, the situation has not improved. Scholars have recognized community as referring to a place, process, institution, interaction, feeling, cognition, structure, and a number of other concepts (Rothenbuhler, 1991; Garcia, et al., 1999).

Despite this lack of consensus among researchers, community scholars generally adhere to one of two research foci. One group is concerned with communities of place, which are territorially based. The other group is concerned with communities of interest, where membership is primarily intentional and is based upon something other than location (Gusfield, 1975).   The predominant difference between these two types of communities is the element of choice. Although there are some aspects of choosing where one lives,

constraints such as work, finances, family, and schools limit the options (Obst & White, 2007).

Although communities of interest may still occur in geographically bounded areas such as the church or the workplace, Dunham (1986) points to three main factors that have led to the decline in the notion of community as tied to a place: "the industrial revolution, the increase of scientific knowledge, and the increase in the speed of communication" (p. 399). As these technological advances continue to reduce the cost of transporting people and information, individuals are given increasing abilities to choose whom to interact with beyond close physical proximity. In fact, beginning with the invention of the printing press, communities created through mediated communication have allowed individuals to move beyond physical interaction to build communities that completely lack face-to-face communication. Jankowski (2006) explains that scholars have recognized communities forming around traditional print media, such as newspapers and magazines, as well as electronic media, such as radio, TV, and most recently the internet, giving rise to the study of online communities.

Psychological Sense of Community

The overuse and lack of common meaning of the term has led researchers to question what actually makes a group a "community". Sarason (1974) was one of the first researchers to suggest that psychological sense of community (PSOC) should be the defining value of a community among community psychology researchers. He defined

PSOC as "the perception of similarity with others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure" (p. 157). At the same time, he also warned that PSOC "does not sound precise, it obviously reflects a value judgment, and does not sound compatible with 'hard' science" (p. 157). Yet, he argued that people knew when they had it and when they didn't.

Since Sarason's (1974) introduction to PSOC, there has been much debate over its definition and dimensions. In 1986, McMillan and Chavis developed the first theoretical base for studying PSOC, which has received much support and is still the most widely used and accepted among community psychology researchers (Chipuer & Pretty, 1999; Obst & White, 2005; Obst, et al., 2002). They defined PSOC as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (McMillan & Chavis, 1986, p. 9). Their model proposes that four psychological dimensions work together to create an overall sense of community:

- Membership: "the feeling of belonging or sharing a personal sense of relatedness" (p 9).
- Influence: "a sense of mattering, of making a difference to a group and of the group mattering to its members" (p. 9).
- Integration and fulfillment of needs: "the feeling that members' needs will be met

by the resources received through their membership in the group" (p. 9).

- Shared emotional connection: "the commitment and belief that members have shared and will share history, common places, time together, and similar experiences" (p. 9).

PSOC Measures

Within the community psychology field, many researchers have attempted to develop PSOC measures. However as Proescholdbell and colleagues (2006) point out, despite the widespread use of the McMillan and Chavis (1986) theoretical model, corresponding quantitative measures are lacking. Chipuer and Pretty (1999) explain that many researchers develop new PSOC measures that are not based upon the McMillan and Chavis theory, and then incorrectly interpret their results in terms of that theory. Furthermore, researchers have not come to a consensus on what types of factors to include in their scales, and have thus come to vary in terms of affective, cognitive, and behavioral measures, or some combination of the three. The following is a brief review and critique of relevant PSOC measures.

Chavis, Hogge, McMillan, and Wandersman (1986) conducted the first study that examined the validity of the McMillan and Chavis (1986) by measuring, among other things, PSOC among randomly selected individuals in an offline neighborhood. They explained that PSOC is considered to be "a perception with an affective component" (p. 25). Accordingly, they applied the Brunswick Lens methodology, which states, "the true

level of any phenomenon such as sense of community is not directly observable and can only be inferred by judges given access to a set of variables" (p. 26). They extracted 44 items from the Neighborhood Participation Project (NPP) questionnaire. A total of 23 items were identified as representing PSOC and were grouped according to the four McMillan and Chavis (1986) dimensions to create the Sense of Community Profile. Their results supported the four proposed dimensions of PSOC. However, this scale utilized open- and closed-ended questions and was limited due to its length. Additionally, Long and Perkins (2003) explain that because PSOC is a psychological construct, their demographic variables and community-focused cognitive constructs should not have been used.

In response to the restrictions of the Sense of Community Profile, Chavis, with the help of colleagues Perkins, Florin, Rich, and Wandersman created the Sense of Community Index (SCI). Their closed-ended 12-item scale reflected the four dimensions of McMillan and Chavis' (1986) theory, and was based upon the McMillan and Chavis (1986) measure. The scale was first presented in the index of Perkins et al. (1990) as part of the New York City Block Booster action-research project.

The SCI is the most widely cited measure of PSOC (Long & Perkins, 2003; Peterson, et al., 2008). Researchers explain that the SCI is highly important due to its diverse application potential and the fact that it is one of the few based upon sound psychological theory (e.g., Obst & White, 2004; Chipuer & Pretty, 1999). However, as Long and

Perkins (2003) point out, Perkins and colleagues (1990) did not empirically confirm the

four dimensions using a factor analysis. In fact, as Peterson and colleagues (2008) point

out, "no study to date has empirically confirmed the 4-factor model of [P]SOC as

conceptualized by McMillan and Chavis (1986)" (p. 64). Bess and colleagues (2002)

argue that treating SOC as a multidimensional construct poses problems. They explain

that "if SOC is a feeling that one experiences, as McMillan and Chavis suggest, then by

breaking that feeling into elemental parts, the essential quality of the experience is lost"

(p. 11).

In a study examining the internal reliability and factor structure of the SCI across

multiple adult and adolescent settings, Chipuer and Pretty (1999) reported unacceptable

subscale reliabilities and inconsistent results supporting the four dimensions of the

McMillan and Chavis (1986) model. They recommend using a unidimensional model

until the scale items are revised to accurately reflect the four theoretical dimensions.

They also emphasized the importance of researchers adhering to one theoretical model in

this process.

Long and Perkins (2003) suggest that "because empirical evidence exists for SCI as a

viable single-factor index and a theoretical precedence exists for a four factor

solution...CFA is clearly most appropriate for (re)evaluating the SCI" (p. 280). They

used the original NYC Block Booster project data set to reassess the SCI at two different

points in time, explaining that "if indeed SOC has multiple dimensions, then they should

be empirically verifiable, and different communities should vary predictably with regard to members' cognitive-perceptual consensus of 'community'" (p. 202). Using the Time-1 data, they conducted a confirmatory factor analysis on the original SCI but did not find evidence for a one-factor or a four-factor solution. Therefore, the researchers re-examined the original SCI, arguing that four items indicated "place attachment" and should be removed since it has traditionally been a construct separate from SOC. They then added three face-valid SOC items. After running an exploratory factor analysis, they removed three poorly loaded items, resulting in an eight-item, three-factor Brief Sense of Community Index (BSCI) with three factor labels: social connections, mutual concerns, and community values. They confirmed their three-factor solution using Time-2 data. They explain that their scale is valid because it measures only the cognitive-perceptual constructs, and does not measure behavioral or other cognitive-affective-perceptual constructs (i.e., participation, neighboring, community satisfaction, place attachment, collective efficacy) which are related, but separate from SOC. However, as Obst and White (2004) note, Long and Perkins (2003) provide strong empirical justification, but little theoretical support for their new dimensional structure. Furthermore, their dimensions do not correspond with the theoretical dimensions proposed by McMillan and Chavis (1986).

Similar to Chipuer and Pretty (1999), Obst and White (2004) suggest that rather than develop a new scale, the SCI should be modified in order to better measure the original dimensions proposed by McMillan and Chavis (1986). They used 10 of the 12 items

from the original SCI to measure PSOC among participants in multiple offline

communities. However, unlike Chipuer and Pretty (1999), their analysis revealed that

while the four-factor solution was not a good model, it was a better fit than a one-factor

model. Therefore, they adjusted the structure to create a new four-factor structure based

on the same items. Further analysis found that the new structure adequately

corresponded to the McMillan and Chavis (1986) theoretical basis. However, as Peterson

and colleagues (2008) note, their reassignment of SCI items does not conceptually fit the

meaning of McMillan and Chavis' (1986) dimensions. They point out that this approach

may not be useful since it "fails to provide empirical support for the underlying

multidimensional theory of SOC" (p. 63).

Peterson, Speer, and McMillan (2008) developed and tested an entirely new set of

questions, rather than attempt to salvage the SCI, which they explained may better

represent the meanings of McMillan and Chavis' four dimensional model. They used an

8-item scale, referred to as the Brief Sense of Community Scale (BSCS), which was

created by McMillan using his original underlying PSOC theory. Analysis of the BSCS

supported using a 4-factor model rather than a one-factor model, and found that the four

dimensions (needs fulfillment, group membership, influence, and emotional connection)

accurately represent one underlying PSOC construct. They suggest that their results

indicate measurement weaknesses, rather than theoretical shortcomings, are the basis for

the PSOC research inconsistencies. Additionally, they state that their research solidifies

PSOC as a multidimensional, rather than a unidimensional, construct.

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Computer-Mediated Communication

While the McMillan and Chavis (1986) model and the above listed corresponding measures were all developed in a neighborhood setting, research suggests that the framework applies equally to communities of place and communities of interest. PSOC has since been reported in face-to-face communities of interest such as the workplace (Royal & Rossi, 1996; Brodsky & Marx, 2001; Catano, Pretty, Southwell, & Cole, 1993; Pretty & McCarthy, 1991; Pretty, McCarthy, & Catano, 1992), religious communities (Miers & Fisher, 2002), immigrant communities (Fisher & Sonn, 1999; Sonn, 2002), student communities (Pretty, 1990), and medical communities (Bishop et al., 1997).

More recently, scholars have begun to examine groups that are completely mediated, especially those occurring online. Researchers acknowledge that computer-mediated communication (CMC) differs from traditional face-to-face (FtF) communication in several important ways. The internet presents the ability to be anonymous, which is defined as "the degree to which a communicator perceives the message source as unknown or unspecified" (Anonymous, 1998, p. 387). This is a continuous construct, as individuals may perceive varying levels of anonymity online, ranging from knowledge of one's name, to one's appearance and behaviors (Rains & Scott, 2007). According to Ridings and colleagues (2002), most participants in online communication are relatively invisible.

Qian & Scott (2007) propose that anonymity online and offline can be either visual or

discursive. They explain that "visual anonymity refers to the condition where the physical presence of a message source cannot be detected; discursive anonymity, on the other hand, refers to the condition where verbal communication cannot be attributed to a particular source" (p. 1430). Kiesler and colleagues (1984) explain that CMC generally does not provide nonverbal and audio components of communication, or "regulating feedback" such as head nods, smiles, eye contact, distance, tone of voice, and other nonverbal behavior. While some websites have begun to offer video and voice services, the vast majority of communication online is text based, which leads to increased levels of anonymity among group members.

Rains and Scott (2007) suggest that identifying information goes beyond one's name, and "may consist of knowledge of one's routine behaviors, "backstage" self, physical appearance, and other types of information" (p. 64). Similarly, Marx (1999) outlines seven types of identity knowledge:

- Legal name

- Locatability, or location

- Pseudonyms linked to a name or location

- Pseudonyms that are not linked to a name or location

- Pattern knowledge (a distinctive appearance or pattern of behaviors)

- Social categorization

- Symbols of elegibility/noneligibility

He explains that anonymity is a "fundamentally social construct that requires an audience of at least one person" and to be fully anonymous, "a person cannot be identified according to any of the seven dimensions of identity knowledge" (p.100).

Virtual Groups

Scholars examining online mediated groups recognize that these characteristics of CMC may impact group functioning when the primary means of communication occurs online. Kiesler and colleagues (1984) explain that the lack of regulating feedback creates a strong dependency upon the few cues that are available online. However, despite these absences, research has shown that given enough time and interaction, online group members are able to form feelings of relationships equivalent to those experienced offline (Walther, 1992; 1995). These feelings have bases other than physical cues, such as similarity, values and interests, and conversational style, which have been shown to be powerful determinants of friendship and attraction (McKenna & Green, 2002).

Anonymous communication offers a sense of protection in that the communication cannot be directly attributed to the speaker, allowing individuals to speak without the fear of retribution, both personal and legal (Rains, 2007; Scott, 2004). Some researchers suggest that anonymity and unaccountability may result in deindividuation, which is "a psychological state of decreased self-evaluation, causing antinormative and disinhibited behavior" (Postmes, et al., 1998, p. 696). These feelings of being submerged in a group may lead to less inhibited verbal behavior (Kiesler, et al., 1984) online, such as flaming

and cyber-harassment.

However, in a meta-analysis of deindividuation research, Postmes and Spears (1998) found no support for linking deindividuation to increased antinormative and disinhibited behavior. Instead, they found that deindividuation was strongly related to compliance with the situational norms of the group. Similarly, Reicher (1982) used the social identity theory perspective that people have both an individual identity as well as a range of social identities (Tajfel, 1978; Tajfel & Turner, 1986) to argue that rather than loosing one's individual identity in anonymous settings, individuals shift from that individual identity to a social identity. That social identity results in feelings of strong group membership and conformity to group norms.

Reicher's (1982) ideas spurred the development of the Social Identity Model of Deindividuation Effects (SIDE). This model predicts that increasing levels of anonymity can enhance group salience, the perceived unity of the group, and conformity to the social identity and norms of the group (e.g., Lea & Spears, 1991; Reicher, Spears & Postmes, 1995; Spears & Lea, 1992; 1994). Researchers who adhere to this model explain that as cues to individual identities, and therefore their differences, decrease, so do their salience. Instead, the social identity of the group as a whole is accentuated (Lea, 2006; Sassenberg & Postmes, 2002; Postmes, et al., 2001; Tanis & Postmes, 2008). Conversely, the presence of individuating information makes social identity of the group less salient (Postmes, Spears, & Lea, 1998).

Citizen Journalism

Citizen journalism websites are an emerging and important type of online mediated group that have yet to be examined from a community psychology standpoint. According to Pavlik (2001), "democracy depends on an informed citizenry" (p. 23). Traditionally, journalists have served as the main information providers to the citizens of democracy. In what McCombs and Shaw (1972) termed "gatekeeping", the role of the journalist has been to determine whether or not events are newsworthy, and disseminate that information to the public. However, some scholars argue that simply determining what is "newsworthy" is subjective. According to Rettberg (2008), "in twentieth-century democratic societies, people wishing to have their words and ideas published or broadcast had to contend with editorial policies that were generally based on ideology or on what advertisers would support or the public buy. In such a media landscape, many stories would never be deemed 'newsworthy' enough to be heard" (p. 84).

Other researchers argue that once an event is deemed to be "newsworthy", the presentation of that story may be biased. Pavlik (2001) claims that conveying the "truth" in a news story has been a problem for traditional print and broadcast media due to space and time limitations. He explains that this has resulted in a media culture that "tell[s] each story from a single point of view and provide[s] the audience with reports that purport to be the truth. But despite the claims of many traditional journalists, the truth is not easily encapsulated into a single linear narrative of fifteen hundred words or less in print or three minutes or less of video and audio" (p. 23).

However, the internet has created a public media space that has revolutionized the journalism industry. New technologies have created an emerging culture of "citizen journalism" by allowing virtually anyone to transmit information to a world-wide audience. Rettberg (2008) explains that rather than the mass media being dominated by a few producers communicating to a large, passive audience, the internet supports a system of many producers communicating to a small, active audience. According to Leung (2009)

> Citizen journalism is the act of a citizen or group of citizens playing an active role in the process of collecting, reporting, analyzing and disseminating news and information (Gillmore, 2006). The intent of this participation is to provide the independent, reliable, accurate, wide-ranging and relevant information that a democracy requires. (p. 1328)

These citizen journalists are taking advantage of online formats such as discussion boards, listservs, newsgroups, bulletin boards, chatrooms, and most recently, news blogs, which are "frequently modified web pages in which dated entries are listed in reverse chronological sequence" (Qian & Scott, 2007, p. 1428). Two main types of news blogs exist online: those that are attached to mainstream media sites and are written by professional journalists, and those that are independently created by citizen journalists. The latter may provide breaking news, media critique, personal views, or status of mainstream news reports.

An important characteristic of blogs is the their interactivity. Unlike traditional media,

the internet provides two-way communication between producers and consumers, allowing greater access to information and more choice in the selection of that information (Johnson & Kaye, 2009). According to the Pew Internet and American Life Project, 87% of all blogs accept comments on their sights (Lenhart & Fox, 2006), which allow users to interact with bloggers and other blog readers (Kaye, 2005; Matheson, 2004). Researchers suggest that that blogs encourage user participation through discussion and knowledge sharing (Blood, 2003; Kaye, 2005). A study by Ridings and colleagues (2002) found that information exchange is a main motivator for joining an online group. Carroll (2004) argues that "generation Y's 16- to 24-year-olds who spend $200 billion annually, want to interact with the news, not merely to passively receive it. Generation Y sees news coverage more as a discussion and less a lecture" (p. 1). Matheson (2004) suggests that many bloggers view the internet as "a democratic space in which all social actors' voices may be heard, and where audiences can become active publics" (p.452). He explains that blogs provide a forum where ordinary citizens can comment on, critique and analyze the traditional media.

Research has also found that blogs provide greater depth and thoroughness than the mainstream media, as well as more creative and individualized writing (Matheson, 2004). Additionally, blogs give users access to both information and opinion (Johnson & Kaye, 2009; Shao, 2009; Nardi, et al., 2004; Matheson, 2004; Kaye, 2005). Kaye (2005) noted that weblog readers are particularly attracted to "intellectual and in-depth news and commentary", which the readers then compare to traditional media accounts (p. 90).

Furthermore, blogs allow users to disseminate and locate that information rapidly and indefinitely (Taricani, 2007). Finally, Pavlik (2001) explains that "news in this new media environment can take advantage of the full range of communication modalities, including text, audio, video, graphics, and animation" (p. 4). Blood (2003) adds that the use of hyperlinks greatly extends the richness of the information found on blogs.

According to the Pew Research Center (Journalism.org, 2009) and the Center for Digital Future (2009), since the emergence of new forms of media, we have seen a decline in the use of traditional media sources such as newspapers and broadcast news and an increase in the use of blogs as news sources. A study by the Pew Research Center (Journalism.org, 2010) revealed that approximately 71% of internet users, or 53% of all Americans get their news online. This is not surprising, given the immensity of the blogosphere. In 2007, Technorati founder Dave Sifry reported tracking over 70 million blogs, with a growth of over 120,000 new blogs created each day (Sifry, 2007).

However, research has also shown that these online sources are not likely to completely replace traditional media. Rather, they gratify needs that are not served by traditional journalism, and neither will exist in isolation (Journalism.org, 2009; Zuniga & Rojas, 2009). In fact, a study by the Pew Research Center (Journalism.org, 2009) discovered that 91% of the stories on citizen news blogs provided at least one outside source link, and approximately 70% of the stories offered 11 or more links. In an ongoing analysis of blogs and social media sites by the Pew Research Center revealed that 80% of their links

are to traditional media (Journalism.org, 2010). Highlighting this, Pew Research (Journalism.org, 2010) found that while blogs focus on different story lines than traditional media, the majority of the original reporting came from these traditional outlets.

Rettberg (2008) identifies three main functions of news bloggers: (1) they may give first-hand reports from ongoing events, (2) they may tell stories that traditional journalists either did not investigate critically enough, or did not report at all, and (3) they may filter stories according to their interests, or according to a particular person or issue (p.86). Kaye and Johnson (2006) found that blog users listed "to gather information I can't get from traditional media" and "to check the accuracy of traditional media" as the top two reasons for visiting the site. Similarly, research by the Pew Internet and American Life Project found that

> 29% of all online news readers say they get news online because they can get information from a wider range of viewpoints on the Web, and 24% of all online news readers say they get news online because they can get more in-depth information on the Web (Lenhart & Fox, 2006).

Walker (2001) explains, "any comparison between blog reports and straight news, on the basis of speed or anything else, misses the point. What Weblogs are good for isn't adding to an existing media pile-on but ferreting out strange and wonderful, or merely strange and strange, things you are likely otherwise to have missed" (p. 2).

News blogs are tailored to specific interests and transcend geographical boundaries. They allow members to use their interactive features to connect to others around the world from the comfort of their living rooms, with the possibility of never meeting face to face, and thus represent an important subset of mediated communities of interest.

PSOC Online

Given that recent SIDE research has identified feelings of strong group membership and group conformity occurring in online groups, and CMC research has revealed strong feelings of friendship and attraction online, the study of PSOC formation among members of mediated groups occurring online has been gaining popularity among researchers (e.g., Obst, Zinkiewicz, & Smith, 2002a; Blanchard & Markus, 2004; Blanchard, 2008; Forster, 2004). According to Obst and colleagues (2002a), despite the lack of geographic proximity, PSOC can exist online. In fact, in a study comparing participants' PSOC in a virtual community of interest and participants' PSOC in their offline geographic communities, they (2002b) found that PSOC was significantly higher in the virtual community. They state, "this may be because members choose to belong to such communities and are drawn together through a common interest" (p. 114). Similarly, a study by Obst and White (2007) found that individuals who perceive a greater degree of choice in belonging to a community report higher levels of PSOC than individuals who perceived less choice in membership.

Several other researchers have confirmed that PSOC can develop in mediated

communities online, in communities of education (Rovai, 2002), mental and health

support (Forster, 2001; 2004), fandom (Obst, et al., 2002a), transaction (Boyd, 2002), and

information and knowledge exchange (Blanchard, 2007), in personal blogging

communities (Blanchard, 2004), and newsgroups (Baym, 1995).

The PSOC measures discussed up to this point were all developed in the offline context.

However, given the unique characteristics of CMC, Blanchard (2007) developed a PSOC

scale designed specifically for online communities taking in to consideration the unique

characteristics of CMC. In her review of prior research (Obst, et al., 2002; Blanchard &

Markus, 2004), she found that online community members "may have less pronounced

feelings of influence" and that "they feel that they know the personalities of others and

experience and observe more personal relationships". Therefore, she suggested that

PSOC online is different than that occurring online. In a study of online newsgroups and

listservs, she created 10 new items designed to measure unique components of PSOC

online, and combined these with the original 12 items of the SCI to create a new 22-item

Sense of Virtual Community (SOVC) measure. Using a factor analysis, Blanchard

(2007) found that a three-factor structure was appropriate and that they could be

combined for one overall measure of SOVC. Four items were eliminated due to poor

factor loadings, poor reliability, and inappropriate loading onto other study variables,

resulting in a final 18-item, unidimensional SOVC scale. However, as Proescholdbell

and colleagues (2006) point out, PSOC measures must take care not to "confound the

component constructs with their antecedents" (p. 11). While experiencing and observing

relationships may indeed be related to PSOC online, it is not a dimension of PSOC

identified by McMillan and Chavis (1986), and therefore should not be included in the

measure.

PRESENT STUDY

The current study examines a specific type of mediated group: online news blogs.

Scholars have yet to examine PSOC formation within this prolific technology; therefore

this study suggests that investigating PSOC among news blog members is valuable to the

blog itself, as well as society as a whole for several reasons. First, given the nature of the

internet, where participants may leave at any time with a click of the mouse, online

groups are presented with a unique difficulty in retaining membership. Previous research

has shown that successful blogs depend on this active membership and knowledge

contribution (Lin, 2008), however many are unable to retain returning membership and

knowledge contribution and thus have ceased to exist (Ma & Agarwal, 2007). Given that

PSOC formation has been shown to increase commitment to and satisfaction in the group,

this study suggests that the existence or lack of PSOC may help to explain the ability of

some blogs to thrive while others fail.

Second, PSOC formation among members of news blogs may be key in engaging

journalism audiences. Given the abundance of online news blogs, individuals are now

able to easily seek out media communities that support and reinforce their own interests

and ideas. The Pew Research Center (Journalism.org, 2010) discovered that audiences are no longer seeking out news organizations for their full news agenda. Instead, they seek out the news according to the topics they are interested in. While this shift may lead to more homogeneous ideas and interests within the blogs themselves (Lea & Spears, 1992; Baym, 1998), it also increases the likelihood that individuals will feel that their ideas are supported by other community members and will in turn be willing to contribute to that blog. Wellman and Gulia (1999) explain that a focus on shared interests is especially "empowering for otherwise lower-status and disenfranchised groups" (p. 184).

Furthermore, PSOC is especially important among news groups, where exchanging valuable, quality information is more important than quantity of that information. A recent study by the Pew Research Center (Journalism.org, 2010) found that blogs have the ability to "quickly trigger and concentrate passionate debate and activity around a specific issue". Additionally, while traditional media emphasizes the top-down format, where citizens have little control over content, news blogs represent a future of bottom-up, user-generated content. PSOC encourages participation within news blog communities, which in turn increases the likelihood that consumers will articulate their wants and needs to the producers of those blogs. This cyclical process provides blog producers with the knowledge necessary to create content desired by the blog members, which encourages future participation.

Not only does this process impact the blogosphere, but also the journalism industry as a

whole. Given the reciprocal relationship between bloggers and traditional media, online links between the two may help to bolster traditional media consumption. Pavlik (2001) argues that this new form of journalism has the ability to "reengage an increasingly distrusting and alienated audience" (p. xi). In this context, viewing blogs as credible sources of information is critical, as research has shown that credibility is central to the value of news (Johnson & Kaye, 1998; Metzger, et al., 2003). However, Johnson and Kaye (2009) point out, "credibility is not a characteristic inherent in a source, but a judgment made by the users themselves" (p. 175). Anonymity has been shown to adversely impact judgments of the credibility of traditional media sources, leading some to question the value of news blogs occurring in a highly anonymous online context. Researchers examining internet users in general have discovered moderate to low ratings of news blog credibility (e.g., Banning & Sweetser, 2007). However, researchers examining blog users have discovered high ratings of news blog credibility (e.g., Johnson & Kaye, 2004). Flanagin and Metzger (2000) explain, "people trust information sources with which they are familiar" (p. 520). Given that PSOC has been shown to increase commitment to the community, this may be key in mediating the negative effects of anonymity upon news blog credibility.

Finally, as with any new technology, arguments both for and against the societal benefits of online groups have been abundant. Researchers such as Durkheim (1964) and Putnam (2000) worry that modernization and decline of face-to-face communication has put the notion of community in danger. They argue that we have lost crucial social ties to

friends, family, and neighbors that are so crucial to democracy, and that we have become

isolated human beings. Yet other researchers argue that these ties have not been lost, but

instead have been relocated. As Schuler (1996) explained, "computer technology – in

concert with other efforts – can play a positive role in rebuilding community by

strengthening…core values" (p. 34). Rheingold (1993) goes as far as to argue that online

communication will reestablish our traditional community values. Similarly, Benedict

Anderson's (1983) "imagined community" explains that even in the absence of regular

contact, members of large groups are able to feel a sense of belonging. He suggests that

national communities are held together by individual feelings of togetherness, rather than

physical interactions or physical features such as national borderlines. In the case of

online groups, PSOC is key in fostering social connections and action, which are central

to a functional democracy. In fact, research has shown that participation in online

communities may actually enhance offline action and connections (e.g., Schuler, 1996).

In the past, neighborhoods and traditional media have primarily played this role. As

people move away from traditional community connections and offline media, and

become more connected and informed online, news blogs play a central role in filling in

the relational and functional gaps that may missing in individuals' offline lives.

PSOC Correlates

Although longitudinal research is necessary to distinguish antecedents from the

constructs and consequences of PSOC, the current study attempts to determine

individual-level characteristics that may account for the variance in PSOC formation

among members of news blogs. Based on previous research the following variables are hypothesized to be related to PSOC formation.

Conscious Identification. Recently, some researchers (Obst et al., 2002a; 2002b; 2002c; Obst & White, 2005) have suggested that in virtual communities, identification plays an important role in several dimensions of the McMillan and Chavis (1986) theory of PSOC, and the difference in levels of PSOC may be better understood in terms of the degree to which members consciously identify with their community.

The social identity theory (SIT) (Abrams & Hogg, 1990; Hogg & Abrams, 1988; Hogg, 1992; Tajfel, 1978; Tajfel & Turner, 1979) provides a solid theoretical framework to examine the role of identification in PSOC research. Tajfel (1978) defines social identity as "that part of an individual's self-concept which derives from…knowledge of…membership of a social group together with the value and emotional significance attached to that membership" (p. 63). According to Hogg (1992), when an individual is strongly aware of their group membership and it is of strong value and emotional significance to them they are said to have strong in-group identification. He argues that this applies not only to small groups, where all members interact, but also to larger groups and social categories, where it is impossible to interact or even know all the members of the group. This suggests that SIT applies to both communities of place as well as mediated communities of interest.

Cameron (2004) proposed a three-dimensional model of social identification, which consists of three underlying dimensions. First, he explains that we all belong to several social groups, but for various reasons, our membership these groups are not likely to be of equal meaning or value to us. Therefore, he identifies cognitive centrality, or "the frequency with which the group comes to mind, and the subjective importance of the group to self definition" (p. 242) as an important dimension in SIT. Second, he identifies the emotional valence we place on our membership, or ingroup affect, as being the "specific emotions…that arise from group membership" (p. 242). Finally, ingroup ties, or perceptions of similarity and bonds with other group members, make up a third dimension of SIT.

While the relationship between the dimensions of SIT and PSOC has not yet been extensively examined, studies by Obst and colleagues (2002a, 2002b, 2002c), utilized Cameron's (2004) model, finding that while ingroup affect and ingroup ties were subsumed within McMillan and Chavis' (1986) PSOC dimensions, centrality emerged as a unique dimension, but was very strongly related to PSOC. Another study by Obst and White (2005) also found that centrality emerged as a theoretically distinct construct from PSOC, and that it was more important to members of interest based than geographically based communities. These researchers explained that when individuals choose to belong to a group, it is likely an important part of the individual's identity, and therefore individuals are more likely to consciously identify with that group.

H1: Membership centrality will be positively associated with PSOC

Involvement. Ridings and colleagues (2006) explain that online, members who visit a news blog site, and may participate by reading posts but do not contribute postings themselves, are known as "lurkers". Research has found that participation in the community influences whether self and social benefits from group membership are experienced (McKenna & Green, 2002) and is directly associated with PSOC formation (Brodsky, et al., 1999). In a study of a blogging community, Blanchard (2004) found that frequency of reading a blog, and reading and posting to comments are strong predictors of PSOC. Another study by Blanchard and Markus (2004) showed that while lurkers can form PSOC in an online newsgroup, it is weaker than that of more active members. Similarly, Preece and colleagues (2004) found that in online bulletin board communities, posters feel that they get more from the community, have a greater sense of belonging to the community and have more favorable opinions of other members of the community than lurkers.

Researchers have also found that the duration of time dedicated to the group will positively impact PSOC formation (e.g., Pretty et al., 1994). Blanchard's (2004) study revealed that length of time belonging to an online group is a strong predictor of PSOC. Blanchard and Markus (2004) suggest that history and involvement are intertwined, explaining that while initially members may participate passively, as they learn the group norms, over time they are likely to gradually become more active.

H2: Blog participation as measured by posting and reading will be positively associated with PSOC

H3: Length of history with reading and posting on the blog will be positively associated with PSOC

Interpersonal Trust. Although CMC differs from traditional face-to-face interactions, studies have shown that over time, members of online groups develop feelings of trust similar to those of offline groups (Jordan, 2005; Walther, 1995). Fukuyama (1995) explained that "communities depend on mutual trust" (p. 25) and trust itself "arises when a community shares a set of moral values in such a way as to create expectations of regular and honest behavior" (p. 153). According to Ridings and colleagues (2002), trust is "an implicit set of beliefs that the other party will refrain from opportunistic behavior and will not take advantage of the situation" (p. 275). They explain that in online groups, rules may not satisfactorily guarantee that members will behave according to social expectations. Trust may work in the place of rules to provide a comfortable and productive atmosphere, is therefore especially important to members of online groups.

It is not surprising then that researchers have found that successful virtual communities depend on a degree of honesty and trust (Joinson & Dietz-Uhler, 2002), and that trust is central to improving participation and knowledge sharing in virtual communities as well as virtual community functioning overall (Ridings at al., 2002). While the relationship

between trust and PSOC has not been extensively examined, Blanchard and Markus (2004) discovered a positive relationship between the two.

H4: Trust in other community members will be positively associated with PSOC

Motivations. Several studies have found that information exchange is the most common reason to join an online community (e.g., Ridings & Gefen, 2004; Ridings, et al., 2006; Jones, 1995; Wellman, et al., 1996). Researchers have found that other reasons include seeking friendship, social and emotional support, companionship, friendship, a sense of belonging, self-expression, encouragement, recreation (Ridings & Gefen, 2004; Ridings, et al., 2006; Hiltz, 1984; Wellman, et al., 1996), however these have been shown to be significantly dependent upon the community type (Ridings & Gefen, 2004). In a survey assessing general blog use, Kaye (2005) identified six primary reasons for following blogs: information seeking and media checking, convenience, personal fulfillment, political surveillance, social surveillance, and expression and affiliation. However, no study to date has examined the relationship between motivations for using news blogs and PSOC. According to the Uses and Gratifications Theory, individuals are motivated to seek out media in order to fulfill certain needs, and through that process the media may impact "individual characteristics or social, political, cultural or economic structures of society" (Rubin, 2002, p. 528). Therefore, the individual's motivations for joining the community and needs fulfillment sought from the community may be related to PSOC formation.

RQ1: Is there a relationship between motivations for using weblogs and PSOC?

METHODOLOGY

Procedures

Participants were recruited from three major news blogs: Think Progress, Daily Kos, and Red State. The blogs were non-randomly picked from a list of the most highly followed and cited news blogs using the website Technorati.com. Each requires members to register with a valid e-mail in order to comment, and comments are moderated after they are posted. An editorial staff writes posts, and investors, corporate funding and advertising support the websites. The sites are all independent of the mainstream media. A recruitment statement was posted on each blog identifying the author and the purpose of the study. On Daily Kos and Red State a personal diary was created, and on Think Progress the recruitment statement was posted as a comment on several active blog entries. If interested, participants were asked to follow a link to the online survey. Participants were provided with a consent form, and were also advised that at the end of the study they would have the option to include their email address, should they be interested in the results of the study. Ninety-three participants completed the survey and were included in the present study. Table 1 provides participant demographics.

Table 1. Participant Demographics

	All Participants (%) (n = 93)	Think Progress (%) (n =31)	Daily Kos (%) (n =30)	Red State (%) (n =32)
Gender: male	69	81	53	69
Age				
18 to 35 years	22	13	17	34
36 to 50 years	33	36	37	28
51 to 64 years	38	45	43	25
65 years or older	5	3	3	9
Employment Status				
Employed	58	68	37	69
Unemployed	14	13	23	6
Student	4	3	7	3
Retired	14	13	17	13
Education				
High school or less	4	7	0	6
Some college	27	39	17	25
Bachelor's degree	25	19	23	31
Graduate degree	43	36	60	34
Household income				
Less than $25,000	17	29	17	6
$25,000 to $49,999	9	13	10	3
$50,000 to $99,999	20	23	30	34
$100,000 to $149,999	16	13	10	25
Over $150,000	8	7	10	6
Ethnicity				
Arab	2	3	0	3
African American	3	0	7	3
Asian/Pacific Islander	3	7	3	0
Caucasian	78	84	87	66
Hispanic	1	0	0	3
Native American	1	0	3	0

Materials

Research materials consisted of a questionnaire containing an 8-item PSOC Scale, a 4-item identification scale, a 5-item involvement survey, a 6-item trust scale, and a 24-item motivations scale. All items were altered to reference the specific online community, as suggested by Chipuer & Pretty (1999). Scales are listed in Table 2, and items are shown

in Appendix A.

Psychological Sense of Community. The current study used the 8-item Brief Sense of

Community Scale (BSCS) developed by Peterson and colleagues (2008), which was

designed to asses the four dimensions proposed by the McMillan and Chavis (1986)

model: membership, influence, needs fulfillment, and emotional connection. These four

dimensions are hypothesized as representing one underlying PSOC construct. Given the

lack of consistency among PSOC researchers, this scale is appropriate because the

researchers not only used the original McMillan and Chavis theoretical framework to

guide the development of the questions, but it also is the first empirical study to support

their four dimensional model. Although some previous research (i.e., Obst, et al, 2002;

Blanchard, 2007) suggests that feelings of influence may not be an important dimension

of online PSOC, the current study attempts to build upon the McMillan and Chavis

(1986) theoretical foundation, and will therefore include all four original dimensions. All

BSCS items used a 5-point Likert-type response option format ranging from *1 = strongly

disagree* to *5 = strongly agree*. Cronbach's Alphas of each subscale were .87 for

membership (M = 3.28, SD = 1.23), .31 for influence (M = 2.85, SD = .81), .78 for needs

fulfillment (M = 3.22, SD = 1.02), and .90 for emotional connection (M = 3.18, SD =

1.19). Cronbach's Alpha for the entire 8-item BSCS scale was .92 (M = 3.13, SD = .95).

Identification. Cameron's (2004) 12-item Three Dimensional Strength of Group

Identification Scale examines three dimensions of identification: centrality, ingroup

affect, and ingroup ties. Previous research has supported the use of this scale online

(Obst, et al., 2002; Obst & White, 2005) and offline (Cameron, 2004). For the current

study, only the 4-item centrality subscale was used due to previous findings that ingroup

affect and ingroup ties are subsumed within PSOC (Obst, et al., 2002; Obst & White,

2005). All negatively worded items were reverse coded prior to analysis. All

Identification-Centrality items used a 5-point Likert-type response option format ranging

from *1 = strongly disagree* to *5 = strongly agree*. A composite variable that represents

the mean Identification-Centrality score based on all four items was created. Cronbach's

Alpha for the composite 4-item Identification scale was .64 (M = 2.17, SD = .80).

Involvement. Based upon Blanchard's (2004) study, two questions assessed involvement

history by surveying how many months they had been reading (M = 4.65, SD = 1.82) and

posting (M = 3.70, SD = 2.12) on the blog (*ranging from 1 = less than one to 6 = more*

than 24). Three questions assessed involvement participation by surveying how many

hours per week they read (M = 3.90, SD = 2.03) and posted (M = 2.23, SD = 1.90)

comments on the blog (*ranging from 1 = less than 1 to 7 = more than 10*), and the

number of posts made per week (M = 4.82, SD = 4.25; *ranging from 1 = I read, I don't*

post to 11 = more than 10).

Trust. The current study uses a 6-item measure adapted from Jarvenpaa et al. (1988) to

fit the online community environment. These items were designed to assess the three

dimensions of trust: ability, benevolence, and integrity (Blau, 1964; Butler, 1991;

Jarvenpaa, et al., 1998). All Trust items used a 5-point Likert-type response option format ranging from *1 = strongly disagree* to *5 = strongly agree*. A composite variable that represents the mean Trust score based on all six items was created. Cronbach's Alpha for the entire 6-item Trust scale was .87 (M = 3.27, SD = .86), indicating that the items have a very high internal consistency.

Motivations. Motivations for using the blog were measured using an adapted version of Kaye's (2005) 28-item scale, which was developed from previous uses and gratifications studies (Kaye, 2005). 24 items were used to assess five primary reasons for using news blogs: personal fulfillment (6 questions), political and social surveillance (4 questions), convenience (5 questions), information and media checking (7 questions), and expression and affiliation needs (2 questions). All Motivation items used a 5-point Likert-type response option format ranging from *1 = strongly disagree* to *5 = strongly agree*. The Cronbach's Alpha for each of these subscales was .80 for Personal Fulfillment (M = 3.43, SD = .76), .61 for Political and Social Surveillance (M = 3.04, SD = .83), .88 for Convenience (M = 3.57, SD = .94), .81 for Information and Media Checking (M = 3.50, SD = .84), and .60 for Expression and Affiliation needs (M = 3.42, SD = 1.20).

The questionnaire also included items that assessed basic demographics (i.e., gender, age, employment status, education, income and ethnicity), asked whether participants were blog authors themselves, and the frequency with which they sought out news using the internet, newspapers, magazines, TV and the radio (items ranged from *1 = never* to *6 =*

multiple times a day). Four additional items were include to assess the degree to which

members perceived similar goals (i.e., "The other participants and I want the same thing

from this blog"; M = 3.06; SD = 1.09) and values (i.e., "Participants in this blog [do not]

share the same values"; M = 2.52, SD = 1.08), honesty (i.e., "The other participants are

generally honest in their contributions to this blog"; M = 3.76, SD = 1.04), and the

importance of anonymity to the participants (i.e., "The fact that I do not know the identity

of other participants is not important to me"; M = 3.90, SD = .93). Items used a 5-point

Likert-type response option format ranging from *1 = strongly disagree* to *5 = strongly*

agree, and the item assessing similar values was reverse coded prior to analysis.

Table 2. Research Variables

Variables	N	Alpha	Mean (SD)	Number of Items
BSCS Overall (BSCS)	93	0.92	3.13 (.95)	8
BSCS: Needs Fulfillment Subscale	93	.78	3.22 (1.02)	2
BSCS: Membership Subscale	93	.87	3.28 (1.23)	2
BSCS: Influence Subscale	93	.31	2.85 (.81)	2
BSCS: Emotional Connection Subscale	93	.90	3.18 (1.19)	2
Identification: Centrality (ID)	93	.64	2.17 (.80)	4
Involvement: History (Reading)	93	---	4.65 (1.82)	1
Involvement: History (Posting)	93	---	3.70 (2.12)	1
Involvement: Participation (Reading)	93	---	3.90 (2.03)	1
Involvement: Participation (Posting)	93	---	2.23 (1.90)	1
Involvement: Number of Posts	93	---	4.82 (4.25)	1
Trust Overall (TR)	93	.87	3.27 (.86)	6
Motivation: Information Seeking/Media Checking (IM)	93	.81	3.50 (.84)	7
Motivation: Convenience (CN)	93	.88	3.57 (.94)	5
Motivation: Personal Fulfillment (PF)	93	.80	3.43 (.76)	6
Motivation: Political/Social Surveillance (PSS)	93	.61	3.04 (.83)	4
Motivation: Expression/Affiliation (EA)	93	.60	3.42 (1.20)	2

RESULTS

The objectives of this study were to discover the extent to which members of news blogs displayed PSOC using the BSCS, and to measure its relationship with theoretically relevant individual-level variables. First, a preliminary one-way ANOVA was performed to test for significant differences between the three blogs that were sampled. Second, an exploratory factor analysis (EFA) was conducted to test the factor structure of the BSCS. Finally, a partial correlation analysis and multiple regression analyses were conducted to test the relationship between PSOC and the relevant variables: identification, involvement, trust, and motivations. The measures were predicted to correlate positively in each case. Gender, age, education and income served as covariates. The variables involvement, age, education and income were recoded to mimic continuous variables.

Preliminary Analysis

To determine whether a significant difference in BSCS scores existed between the three blogs, an initial one-way ANOVA was conducted. Results showed no main effect of blog type ($p > .05$), and the necessary assumptions were met (homogeneity of variance and normality of residuals); therefore scores were combined for the remainder of the analyses. Table 3 shows the mean scores and standard deviations for each news blog.

Table 3. BSCS Scores of each News Blog

	Daily Kos Mean (SD)	Red State Mean (SD)	Think Progress Mean (SD)
BSCS	3.29 (1.00)	3.03 (1.04)	3.09 (.79)

Factor analysis

To examine the factor structure of the BSCS in relation to the McMillan and Chavis (1986) model, an exploratory factor analyses (EFA) was performed. The Kaiser-Meyer-Olkin (KMO), which is a measure of the sampling adequacy, was .90, indicating that a factor analysis was appropriate. A four-factor solution was requested based upon the four McMillan and Chavis (1986) dimensions.   The extraction method of principal axis factoring, and the rotation method of oblimin with Kaiser normalization were used since the components of PSOC are hypothesized as representing one underlying construct, and therefore should be correlated. Inspection of eigenvalues and the scree plot revealed that a single-factor solution was the best fit. A solution based on eigenvalues greater than 1 was then requested, resulting in a single-factor solution that accounted for 60.3% of the variance in the data. One question, BSCS item 6, emerged as distinct from the remaining questions (with a factor loading of .32). However the remaining questions showed high positive factor loadings (ranging from .70 to .92), and given the high Cronbach's alpha ($\propto$ = .92) indicating that the items have a very high internal consistency, a composite variable that represents the mean BSCS score based on all eight items was created.

Partial Correlation Analysis

Pearson correlation was calculated using a partial correlation analysis in order to examine the relationship between PSOC and each correlate. Additionally, PSOC has been found to be greater in females (Brodsky, et al., 1999; Long & Perkins, 2003), and increases with age (Long & Perkins, 2003; Peterson, et al., 2008; Brodsky, et al., 1999; Perkins & Long, 2002), education (Kingston, et al., 1999), and income (Kingston et al., 1999; Perkins & Long, 2002). Therefore, these demographic variables served as covariates. Table 4 shows the correlations between the BSCS and all covariates. As can be seen, the no covariates were significantly related with the BSCS. Table 4 shows partial correlations between the BSCS and the set of theoretically relevant variables of involvement (history: reading and posting, participation (reading and posting), identification, trust, and motivations (personal fulfillment, political/social surveillance, convenience, information seeking/media checking, and expression affiliation). As can be seen, all variables are significantly correlated with the BSCS, with the exception of history: reading.

Table 4. Pearson Correlations between BSCS and covariates

Variables	Overall BSCS
Gender	.02
Age	.21
Education	.20
Income	.14

Note: N = 93. *$p < .05$, ** $p < .01$

Table 5. *Partial correlations between BSCS and theoretically relevant variables, using covariates*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Overall BSCS	---	.12	.26*	.49**	.43**	.35**	.42**	.65**	.62**	.26*	.57**	.68**	.56**
2. History: Reading		---	.59**	.41**	.20	.37**	-.19	-.02	.08	-.14	-.08	-.07	.20
3. History: Posting			---	.49**	.54**	.59**	-.03	-.04	.16	-.16	-.08	.06	.49**
4. Participation: Reading				---	.68**	.60**	.14	.34**	.39**	-.04	.33**	.37**	.47**
5. Participation: Posting					---	.73**	.25*	.26	.21	-.04	.15	.27*	.48**
6. Number of Posts						---	.10	.08	.26	-.08	.01	.14	.60**
7. Identification							---	.27*	.06	.15	.19	.24*	.09
8. Trust								---	.57**	.37**	.73**	.75**	.25*
9. Personal Fulfillment									---	.22	.62**	.69**	.56**
10. Political/Social Surveillance										---	.44**	.34**	.13
11. Convenience											---	.78**	.33**
12. Information Seeking/Media Checking												---	.48**
13. Expression Affiliation													---

Note. N = 93. Gender, age, education, and income served as covariates. *$p < .05$, ** $p < .01$

Regression Analyses

A hierarchical step-wise multiple regression analysis was performed using the

theoretically relevant and control variables at the alpha = .05 level. A significant model

emerged with the following variables: history: reading; identification; trust; and

motivations: personal fulfillment, information seeking/media checking, and

expression/affiliation. The Durbin-Watson statistic of 1.82 confirmed independent

residuals, and tolerance levels ranged from .341 to .872, indicating that multicollinearity

is not an issue for the data set. The results show that the regression model is significant

(p < .001), and accounts for 72% of the total variance (see Table 6). The beta coefficient

indicates that trust is most strongly related to PSOC, followed by expression/affiliation

and identification.

Table 6. Regression Analysis

Model	Mean	B	St. Error	Beta	t	Sig.
(Constant)		-.984	.302		-3.261	.002**
History: Reading	4.65	.016	.006	.170	2.763	.007**
Identification	2.17	.268	.072	.228	3.739	.000**
Trust	3.27	.278	.093	.253	2.985	.004**
Personal Fulfillment	3.43	.245	.109	.197	2.258	.026*
Information Seeking/Media Checking	3.50	.241	.110	.213	2.190	.031*
Expression/Affiliation	3.42	.186	.060	.234	3.072	.003**

Note: N = 93, R^2 = .722, *p < .05, ** p < .01

DISCUSSION

The findings of this study advance PSOC research in several ways. First, the results help

to extend community psychology research into an important realm that has never before

been examined. Findings indicate that members of news blogs display moderate levels of

PSOC (M = 3.13, SD = .95).

Second, research to this point remains divided regarding the dimensional structure of

PSOC, and the results of this study help to understand the underlying dimensions of

PSOC in the context of news blogs. The factor analysis in this study revealed that the

four factors proposed by McMillan and Chavis (1986) are not independent, which

supports previous findings that the dimensional structure of PSOC may vary according to

the setting. This finding is not inconsistent with the McMillan and Chavis theory.

Instead, the results suggest that online, each dimension is important to overall PSOC, and

are strongly related to one another. Chipuer and Pretty (1999) explain that "it is possible

that the individual subscales do not stand on their own, but through a dynamic interaction

among them create a psychological sense of community as suggested in McMillan and

Chavis' model" (p. 649). Since there was no significant difference across the three

sampled blogs, this study suggests that in the context of online mediated environments, the four dimensions of membership, influence, needs fulfillment and emotional connection are subsumed within one PSOC component.

Additionally, factor analysis revealed that one BSCS item designed to tap the influence dimension (i.e., "People in this blog are good at influencing each other") emerged as distinct from the remaining items. While it is not clear why this item emerged as distinct, it does support previous findings that influence may not be as important to PSOC formation online. However, this item could also indicate that individuals do not have a clear understanding of the item wording, or that it was interpreted differently across individual cases.

In examining the relationship between the theoretically relevant individual-level variables and PSOC, all but one of the hypotheses were partially or fully supported. Consistent with previous research, the final regression analysis revealed that the individual's level of identification with the blog, their history reading the blog, and trust in members of the blog were all significantly and positively related to PSOC. Additionally, results found that personal fulfillment, information seeking/media checking, and expression/affiliation appeared as significantly and positively related to PSOC. Trust emerged as the most strongly related to PSOC, followed closely by expression/affiliation and identification. Not surprisingly, these results indicate that the level of comfort an individual has with the blog, along with the motivation of forming relationships and the centrality of membership

to one's identity are important to PSOC.

Interestingly, not all involvement items were related with PSOC. No relationship emerged with the length of history or participation measured by the frequency of posting comments on the blog, indicating that there may be no difference between active members and lurkers in PSOC formation among news blog members. In addition participation measured by the amount of time spent reading the blog was not significant, indicating that length of history rather than active participation is more important to involvement and to PSOC formation.

Finally, the motivations of political and social surveillance, and convenience did not emerge as significantly related. These results indicate that motivations related to personal investment in the information are highly important to PSOC formation. Conversely, surveillance and convenience motivations imply merely skimming the blog for information, rather than forming a connection with the group. Therefore, it is not surprising that these did not emerge as significant predictors.

Limitations and Future Direction

While the findings of this study present important implications for future PSOC research, it does have some limitations. First, this was a self-selected survey that resulted in a highly educated sample. Additionally, this may have been a sample that is highly invested in the blogging community, and may not fully represent the entire population.

When compared to the size of the blogosphere, this was a relatively small sample. Future research should consider methods to access a larger, more diverse population. Furthermore, given the anonymous environment online, it is impossible to verify that those who completed the survey were in fact the members of the news blogs. While substitutions may have been made in completing the survey, it is highly unlikely given that the link was accessed directly from within the blog.

Second, the current study did not measure whether individuals were registered for the web site, or feelings about site moderators. In order to comment on the blog, an individual must register with a valid e-mail address. In addition, a site moderator controls all comments, posts, and membership. As one participant pointed out, registered users may lose their membership due to various circumstances at the discretion of the site moderator. Future research should examine the relationship between PSOC, blog membership registration policies, and feelings about moderators, as the ability to post may impact PSOC.

Third, since the survey was administered at one time, causality cannot be inferred from the results. Much debate revolves around the relationship between PSOC and theoretically relevant variables. Proescholdbell and colleagues (2006) suggest, "all PSOC measures to date confound the component constructs with their antecedents" (p. 11). To know whether they are predictors, outcomes, or whether a reciprocal relationship exists requires longitudinal research. Additionally, longitudinal research is necessary to

examine whether PSOC has a positive impact upon the success of the blog, as well as impacts upon the journalism industry and society. Importantly, given that PSOC engenders homogeneity, research is needed to examine whether this is beneficial or harmful to community functioning.

Finally, given that community psychology examines the relationship between an individual and his or her environment, future research would do well to examine the environmental-level correlates that are associated with PSOC among the community members. Combined with a determination of the beneficial outcomes of PSOC, discovering the environmental-level characteristics that support PSOC formation could result in a better understanding of creating valuable news blogging communities.

Conclusion

In conclusion, this study found empirical evidence in support of McMillan and Chavis' (1986) four dimensions as representing one overarching PSOC construct in an online context. Additionally, with the exception of one item, it validated Peterson and colleagues' (2008) BSCS as a reliable measure of PSOC among members of online mediated communities. Furthermore, it discovered a significant relationship between PSOC and several individual-level variables, providing insight into the process of community functioning in an online environment.

While some may criticize industrialization, arguing the loss of community and social ties,

the internet is a technology that will continue to grow and expand. The blogosphere has

the potential to offer immense benefits to the journalism industry and society, and

deserves greater attention by community psychology researchers. An understanding of

PSOC functioning and formation within highly anonymous, mediated environments is the

key to unlocking the true value of news blogs.

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Appendix A

Brief Sense of Community Scale (BSCS) Items*

Concept	Item	Item wording
NF	BSCS1	I can get what I need in this blog.
NF	BSCS2	This blog helps me fulfill my needs.
MB	BSCS3	I feel like a member of this blog.
MB	BSCS4	I belong in this blog.
IN	BSCS5	I have a say about what goes on in this blog.
IN	BSCS6	People in this blog are good at influencing each other.
EC	BSCS7	I feel connected to this blog.
EC	BSCS8	I have a good bond with others in this blog.

Concepts based on McMillan and Chavis (1986): NF = Needs fulfillment; MB = membership; IN = influence; EC = emotional connection.

Identification: Centrality Items*

Concept	Item	Item wording
IC	ID1	I often think about the fact that I am a member of this blog
IC	ID2	Overall, being a member of this blog has very little to do with how I feel about myself
IC	ID3	In general, being a member of this blog is an important part of my self-image
IC	ID4	The fact that I am a member of this blog rarely enters my mind

Concept based on Cameron (2004): IC = Identification Centrality

Involvement Items*

Concept	Item	Item wording
PA	IV1	How many months have you been reading this blog?
PA	IV2	How many months have you been posting comments on this blog?
HI	IV3	How many hours per week do you spend reading this blog?
HI	IV4	How many hours per week do you spend posting comments on this blog?

Items based on Blanchard (2004): PA = participation, HI = history

Trust Items*

Concept	Item	Item wording
AB	TR1	The other participants on this blog have much knowledge about the subject we discuss
AB	TR2	The other participants on this blog are well qualified in the topics we discuss
BV	TR3	The other participants on this blog would not knowingly do anything to disrupt the conversation
BV	TR4	The participants on this blog are concerned about what is important to others
IT	TR5	The participants on this blog try hard to be fair in dealing with one another
IT	TR6	The other participants on this blog behave in a consistent manner

Items based on Jarvenpaa, et al. (1998): AB = ability component, IT = integrity component, BV = benevolence component

Motivation Items*

Concept	Item	Item wording
PF	MO1	It is informative
PF	MO2	It is exciting
PF	MO3	It is entertaining
PF	MO4	It helps me to relax
CN	MO5	Information is easy to obtain
PSS	MO6	To get unbiased viewpoints
CN	MO7	To access information quickly
CN	MO8	To access information from home
PF	MO9	To give me something to talk about with others
CN	MO10	To find specific information that I'm looking for
IM	MO11	To keep up with the main issues of the day
PF	MO12	To feel involved
IM	MO13	To access information from work
IM	MO14	To use as ammunition in arguments with others
PSS	MO15	To learn about other people's opinions
IM	MO16	To help me make up my mind about important issues
CN	MO17	To access information at any time
PSS	MO18	To get a wide variety of viewpoints
IM	MO19	To check on the accuracy of traditional media
EA	MO20	To let my opinions be known
EA	MO21	To be in contact with like-minded people
IM	MO22	To get information I can't get from traditional media
PSS	MO23	To see what the other side thinks
IM	MO24	To compare online accounts to traditional media

Items based on Kaye (2005): IM = Information Seeking/Media Checking, CN = Convenience, PF = Personal Fulfillment, PSS = Political and Social Surveillance, EA = Expression/Affiliation