



Notification pending: Online social support from close and nonclose relational ties via Facebook



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ARTICLE INFO

Article history:

Available online 3 July 2014

Keywords:

Network ties
Social support
Computer-mediated communication
Social media

ABSTRACT

Previous research has often assumed social support as a unique affordance of close relationships. Computer-mediated communication alters the availability of relationally nonclose others, and may to enable additional sources of social support through venues like social networking sites. Eighty-eight college students completed a questionnaire based on their most recent Facebook status updates and the comments those updates generated. Items queried participants' perception of each response as well as the participants' relationship closeness with the responder. Individuals perceived as relationally close provide significant social support via Facebook; however, individuals perceived to be relationally nonclose provided equal social support online. While SNSs has not eroded the importance of close relationships, results demonstrate the social media tools may allow for social support to be obtained from nonclose as well as close relationships, with access to a significant proportion of nonclose relationships.

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1. Introduction

The ability and benefit of one's social network to provide social support has been well-established. Earlier studies indicated the benefit of having nearby family and close friends (Adelman, Parks, & Albrecht, 1987; Griffith, 1985), while more recent research has identified the value of family and close friends for emotional well-being even at long distances (Johnson, 2001; Johnson, Becker, Craig, Gilchrist, & Haigh, 2009). However, the Internet has radically increased access to and exchange of social support (Cummings, Sproull, & Kiesler, 2002), and scholars have increasingly sought to understand how computer-mediated communication (CMC) can facilitate social support processes for individuals, particularly via online support groups (e.g., Walther & Boyd, 2002; Wright, 2000) and personal blogs (Rains & Keating, 2011).

Yet relatively little attention has been given to social support processes occurring in social network sites (SNSs). Though nascent research has indicated individuals can receive social support via SNSs (Olson, Liu, & Shultz, 2012), questions remain regarding the meaningfulness of this social support. Unlike traditional, static media, SNSs like Facebook and Hyves give an individual the ability

to access disparate and geographically distant social networks for support (Marwick & boyd, 2011). On SNSs, friends can have varied degrees of closeness ranging from someone the user has never met to the closest relational partner (e.g., spouse, child, or parent; boyd & Ellison, 2007).

Given SNSs allow individuals to readily communicate with large swaths of their personal relationships at low costs, new questions emerge regarding how and from whom social support is obtained via social media. Though early work into social support predicted close relational ties were most effective at providing support (Albrecht & Adelman, 1987; Granovetter, 1973), recent literature has emphasized the accessibility and utility of relationally non-close partners for social support (Rains & Keating, 2011). Given SNSs allow individuals to easily traverse their social networks (boyd & Ellison, 2007) and seek resources from a broader audience in their network relative to face-to-face interactions, SNSs may increasingly change how individuals access their personal relationships, thereby allowing individuals to seek and receive social support from nonclose relationships as well as close relationships.

This research sought to explore how and from whom social support is sought and received via a SNS (Facebook), and in doing so helps revisit and reconsider conceptualizations of social support and relational closeness. As SNSs connect individuals to both relationally close and relationally nonclose ties (Valenzuela, Park,

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& Kee, 2009), sites like Facebook afford a unique opportunity to empirically assess how individuals are contacting their broad networks for social support. Exploring social support in a popular SNS also presents a means to explore how and from whom social support is received online—an area scholars (Wright, Rains, & Banas, 2010) have noted merits further research. Examining social support receipt and seeking behaviors on SNSs presents implications for understanding the effect relational closeness has on social support and its resultant health benefits.

2. Literature review

2.1. Social support

Social support is a critical element and goal of human interaction. *Social support* can be defined as information and actions that cause a person to believe she or he is “cared for and loved... esteemed and valued... [and] belongs to a network of communication and mutual obligation” (Cobb, 1976, p. 300). Cutrona and Suhr (1992) conceptualized two broad categories of support encompassing five types of support. *Action-facilitating support* involves helping solve problems for the stressed person through advice, facts, or feedback (informational support) and/or providing needed goods or services (tangible support). *Nurturant support* provides comfort and consolation through expressions of caring and concern (emotional support), providing a sense of belonging with those of similar concerns (network support), and/or expressing the distressed person’s value to others (esteem support). Social support research within the field of communication has been particularly interested in informational and emotional support due to their frequency in support groups and communicative nature (Braithwaite, Waldron, & Finn, 1999).

Vaux (1988) suggested social support is not only a set of behaviors but also a process of seeking, offering, and evaluating supportive behaviors, often reflected in the communicative exchange of verbal and nonverbal messages. Whether understood as behaviors, a process, or both, it is clear social support is arbitrated through personal relationships (Gottlieb & Bergen, 2010). Recent research has emphasized the strength of interpersonal relationships and the varying social support offered.

2.1.1. Relational closeness

Recent work has noted the differences in social support offered based on the strength of an interpersonal relationship, often drawing from Granovetter’s (1973) weak tie theory to conceptualize dyadic relationships as either weak or strong. Though weak tie theory focuses on the structure and effects of relational networks, recent studies investigate social support framed in Granovetter’s use the level of relational closeness. Strong ties, or *close relationships*, are conceptualized as individuals with whom is strongly connected, often including family members and close friends (Adelman et al., 1987; Albrecht & Adelman, 1987; Albrecht & Goldsmith, 2003; Wright et al., 2010), and are distinguished by high levels of trust, relational intimacy, and support (Granovetter, 1973). Contrarily, weak ties, or *nonclose relationships*, are conceptualized as, “individuals who are not interpersonally close, but with whom people interact in a somewhat limited way within certain contexts, such as neighbors, service providers, and counselors” (Wright et al., 2010, p. 607), often distinguished by low levels of trust, relational intimacy, and support (Granovetter, 1973).

As evidenced in these conceptualizations, relational closeness is best-determined idiosyncratically for each relational dyad; but close relationships generally include intimate friends and family members while nonclose relationships typically include

acquaintances and a broader friend network (Ballard-Reisch, Rozzell, Heldman, & Kramer, 2011). As noted by MacGeorge, Feng, and Burlinson (2011):

Support can come from a wide variety of sources, including everyone from close friends and relatives to acquaintances... However, given that close relationships are generally seen as the locus of intimacy and care (McConatha, Lightner, & Deaner, 1994), it is not surprising to find that immediate family members, friends, and romantic partners are reported as the most frequent sources of support across cultures (e.g., Cortina, 2004) (p. 330).

We examine ties that have traditionally been considered close and nonclose and their social supportiveness in emergent media, specifically the SNS Facebook. Thus, the present study focuses on analyzing the level of relationship, thereby focusing on social support seeking and provision while following Sawhney’s (2007) suggestion to avoid putting new technology in the foreground.

2.1.2. Social support via close relationships

To date, most research on social support has focused on strong ties (Rains & Keating, 2011; Wright & Miller, 2010), operating under the assumption that strong ties are uniquely able to provide social support. These close relationship partners have been repeatedly indicated as the primary providers of social support (Albrecht & Goldsmith, 2003; Griffith, 1985). Access to and social support from those whom we are close to has been empirically associated with reduced loneliness (Serovich, Kimberly, Mosack, & Lewis, 2001) and reduced depression (Metts, Manns, & Kruzic, 1996). Wellman and Gulia (1999) noted, “strong, intimate ties can be maintained online as well as face-to-face” (p. 181), acknowledging the ability of computer-mediated communication tools in allowing individuals to access strong ties for social support. Our close relational partners provide meaningful social support; however, weaker relationships are increasingly seen as sources of support as well.

2.1.3. Social support via weak/distant relationships

Though weak ties may represent connections to others outside of one’s immediate social network, they can be identified by their lack of relational closeness to an individual (Granovetter, 1973; Putnam, 1995). Originally, Granovetter (1973) suggested that these weak relationship partners were able to offer only low levels of support. More recently, several scholars have noted the ability of these nonclose relational partners to provide social support, regardless of network structure, particularly online (Walther & Boyd, 2002; Wright, 2000), altering our understanding of the role and abilities of weak ties. Specifically, research has shown that online support groups, comprised of geographically distant individuals brought together based on a common ailment, affliction, or interest, often provide significant social support to members (Walther & Boyd, 2002; Wellman, 1997; Wright & Bell, 2003; Wright et al., 2010).

Four factors have been suggested to explain why weak ties have evolved beyond their initial explication to provide social support (Wright et al., 2010). Weak ties support may reflect greater heterogeneity over strong ties, facilitating support from more diverse individuals who may therefore be able to offer support for unique problems (Adelman et al., 1987) or serve as a greater means of social comparison than an individual’s homogeneous strong ties (Helgeson & Gottlieb, 2000). Additionally, weak ties may reduce the risk associated with seeking social support, as individuals may disclose stigmatizing information or conditions to seek support, thereby influencing the relationships and future interactions expected of strong ties (Brashers, Neidig, & Goldsmith, 2004).

Moreover, weak ties may be more suited to provide social support as feedback may be offered more objectively than that of strong ties, given their reduced interdependence (Adelman et al., 1987). Finally, Wright et al. (2010) noted weak ties carry fewer role obligations than strong ties, potentially allowing for less discomfort from the communication of negative or non-normative sources of social support seeking. The present research sought to add to these four factors by understanding the role of social network sites in facilitating social support by increasing the accessibility, both in ease of communication and breadth of reach, of relationally non-close ties.

2.2. Diverse relational ties in social network sites

Individuals are increasingly turning to the Internet to connect with other individuals from whom support may be obtained (Craig & Johnson, 2011; Wright & Miller, 2010), strong and weak network ties alike (Boase & Wellman, 2006; Valenzuela et al., 2009). Though previous research has documented the social support afforded by discussion fora (Walther & Boyd, 2002) and blogs (Rains & Keating, 2011), less research has explored social support via SNSs and the unique access to diverse relational ties they afford. Social network sites are web tools that “enable users to articulate and make visible their social networks” (boyd & Ellison, 2008, p. 211). Significant research has indicated SNSs are not used to identify and establish new connections, but rather to maintain extant ties commonly created offline (e.g., Ellison, Steinfield, & Lampe, 2007; Haythornthwaite, 2005). As recent research (Ellison, Steinfield, & Lampe, 2011) has suggested social support may be sought and provided via Facebook, it is of particular interest how social support may be provided by the both relationally close and relationally nonclose partners through the popular SNS.

2.2.1. Relationally close partners in SNSs

Ellison et al. (2011) noted, “Close friends who connect through Facebook are likely to find it an efficient way to keep in touch” (p. 5). Indeed, findings by Subrahmanyam, Reich, Waechter, and Espinoza (2008) indicated about one in five SNS users reported their SNS use brought them closer to their friends, and Ross et al. (2009) reported social support as a primary motivation associated with Facebook use. Consequently, Facebook seems an excellent tool to access relationally close partners and, in turn, the social support they provide. However, relationally close partners are not the only people users’ connect with online. There is good reason to suspect a growing social communication system like SNSs alters the types of relationships partners available to users because the number of easily maintained nonclose relationships increases through the development of communication systems (Granovetter, 1982).

2.2.2. Relationally weak/distant partners in SNSs

Donath and boyd (2004) were among the first to acknowledge the ease of relationally weak connections with online SNSs communication partners. Their claim that weak relationships are the primary target of social network communication has since been demonstrated and validated empirically (e.g., Steinfield, Ellison, & Lampe, 2008; Wright & Miller, 2010). As many users’ hundreds of Facebook “Friends” (Tong, Van Der Heide, Langwell, & Walther, 2008) exceed the total close friends one may meaningfully and cognitively manage at a given time (Dunbar, 1998), it makes sense that nonclose ties are predominant in SNSs. Studies have demonstrated how users often turn to Facebook to obtain new and diverse information or perspectives (Ellison et al., 2011; Smock, Ellison, Lampe, & Wohn, 2011), a defining outcome of weak ties. SNSs are excellent media to access nonclose relationship partners as,

“it is probable that the majority of Facebook friends are weak ties” (Stefanone, Kwon, & Lackaff, 2012, p. 458).

2.3. Social support via social network sites

Though research has well-established the use of the Internet for social support (Walther & Boyd, 2002; Wright, 2000), SNSs may alter the way social support is sought and provided online by allowing equal access to multiple types of interpersonal ties, both relationally distant and close. Unlike discussion boards or email, which often cater to one type of relationship, SNSs allow individuals to simultaneously interact with individuals from multiple relational and social contexts (Marwick et al., 2011). Additionally, SNSs facilitate new communicative processes by enabling the convergence of mass and interpersonal media, allowing one to broadcast messages to her or his entire relational network and receive one-to-one feedback or receive mass feedback from an interpersonal message (Walther et al., 2010). In sum, SNSs like Facebook allow users to access and interact with distant and diverse networks of individuals (Ellison et al., 2007, 2011), altering the nature of interactions and relationships (Walther et al., 2010). Given SNSs allow individuals to access nonclose relationships just as readily as close relationships, it is prudent to reexamine social support within Facebook (the most-used SNS) to understand how and from whom social support is provided when the barriers to access of one’s diverse relational ties are weakened.

2.3.1. Time spent interacting online and offline

Whether with close or nonclose relational partners, time spent interacting about even the most mundane of subjects can provide social support. Barrera, Sandler, and Ramsay (1981) note that joking and kidding in an attempt to cheer someone up, and simply expressing interest in a person’s well-being, are two of many examples of communicative behavior that may provide social support. Online, individuals can readily spend time interacting with close and nonclose ties to ensure access to “a wide variety of resources” (Wellman & Gulia, 1999, p. 173). For example, Manago, Taylor, and Greenfield (2012) found that among college students, Facebook friend networks were comprised of 21% close connections (friends, romantic partners, family), 18% maintained connections (old friends and romantic partners), and 51% casual relationships (acquaintances, classmates, coworkers, etc.). Given nonclose relational connections are accessed via SNSs just as readily as close relational connections (Haythornthwaite, 2002), yet constitute a larger proportion of one’s relational network (Moore, 1990), it can therefore be predicted that an individual interacts more with nonclose relationships than with close relationship partners on Facebook, reflecting the greater proportion of nonclose relationships in one’s online “Friend” network. Conceptualizing time spent interacting as commenting on and liking others’ status updates, as these two acts are dominant means of the lightweight interaction facilitated by Facebook, we therefore propose:

H1. Comments regarding an individual’s post are proportionally generated more by relationally nonclose than relationally close partners on a social network site.

In addition to interacting more often with nonclose than close relational partners online, it is likely users spend more time interacting offline with nonclose than close individuals. If SNSs are connecting people it is likely that this connection bleeds over into other types of interaction (Haythornthwaite, 2005). Haythornthwaite (2005) cautioned that SNSs are unlikely critical channels for close ties given the large number of other available channels. As Ellison et al. (2007) explain, SNSs like Facebook allow users to maintain loosely tied relationships “cheaply and easily”

(p. 1146) across great distances, and this specifically seems to be true in college student populations. Although SNSs may not be critical channels, it is still likely interaction on SNSs is echoed offline as well. Because “Internet use supplements face-to-face and telephone contact” (Wellman, Haase, Witte, & Hampton, 2001, p. 444), relationally close and nonclose ties alike utilize multiple channels for interaction (Haythornthwaite, 2005). Longitudinal research demonstrates the convenience of media channel serves as a primary consideration in maintaining close relationships (Ledbetter, 2008), though the relative availability of nonclose relationships via SNSs suggests nonclose ties are more predominant online than close ties.

Further, Antheunis, Valkenburg, and Peter (2010) found many users of the Dutch SNS Hyves use the site to learn about extant friends to guide future face-to-face interactions. Granovetter (1973) claims that strength of relationship is partially contingent on time spent together. SNS’s unique ability to provide connections to nonclose relationships prompts us to hypothesize about offline partner interaction. As individuals have and can access more nonclose relationships than close relationships online, we expect that (controlling for distance) offline, individuals will interact more often with their nonclose relationship partners than with close relationship partners whom they interact on Facebook. Consequently, we predict:

H2. Among relational partners who provide support by commenting, individuals interact more frequently offline with nonclose than close relationship partners.

2.3.2. Reciprocity

Social support is rooted in messages, interaction, and relationships between communication partners (MacGeorge et al., 2011). An additional factor in the provision of social support is equity – an individual’s willingness to provide social support to another who has (or will) provide that individual social support as well (Brock & Lawrence, 2014). Too much or too little support can both be detrimental to close relationships. Maintaining this balance has implications for relationships that interact both online and offline.

As Wellman et al. (1996) suggest, those who connect online are often socially distant from one another (p. 222). Following previous research in other media (e.g., Rains & Keating, 2011), we suggest that nonclose relational partners may actually be better-situated (and therefore more likely) to reciprocate social support, given the frequency and availability of online interaction with nonclose partners (Ellison et al., 2007) and interpersonal needs to maintain balance in dyadic relationships by engaging in similar levels of disclosure and support (Altman & Taylor, 1973). Building on Hypothesis 2, we extend our argument to predict increased reciprocation of support toward nonclose relationship partners online. Thus:

H3. Individuals more frequently reciprocate online interaction with nonclose than close relational partners on a social network site.

2.3.3. Effectiveness of support

Finally, the collapse of relational contexts and ease of interaction may allow nonclose relationship partners to provide social support which is as effective as the social support provided by close relational partners. Recent work (Rains & Keating, 2011) suggests weak relational ties can provide effective social support in blogs. Because social media like Facebook encourage interaction from all participants (Walther et al., 2010), acquaintances only weakly affiliated with an individual may be able to readily provide significant low cost social support by simply posting a brief comment rather than

expending significant social capital to provide support (Ellison et al., 2007). Though one may need to expend significant time and resources to provide mutual service with a face-to-face relationship (e.g., meeting a friend for coffee, co-commiseration), considerably less is required to be able to reciprocate service or social support via Facebook. Thus, SNSs may enable nonclose partners to provide effective social support, just as in blogs. Thus, the final hypothesis predicts that, on Facebook, nonclose relationships provide equitable social support as close relationships.

H4. Relationally nonclose partners are perceived as providing social support similar to the perceived support of relationally close partners on Facebook.

3. Method

3.1. Procedures

We strategically conducted survey research into relational closeness and social support among college students on Facebook. Using Facebook as a context for this research further allowed a naturalistic way to explore social support, as *comments*—text replies to an individual’s status message publically-posted for the individual and others to read. Participants were asked to come to a research lab, where they were assigned a desktop computer and asked to use two separate browser tabs to sign into their Facebook account and begin an online survey. Participants were then asked to copy each of their last three Facebook status updates and paste the content of each update into an open-text response field in the online survey. For each status update, participants supplied the time and date of the posting, and how many commented on the post (ranging from *zero to five or more*). Based on the number of comments, the online survey automatically generated fields to ask participants a series of questions about specific individuals who they reported had replied or commented. For each of the last five¹ commenters on each update, the participant answered a battery of survey items (see Section 3.3 Measures section below) regarding the commenter and the participant’s relationship with the commenter. Finally, participants were asked questions about their own Facebook use, social support seeking, relational closeness, and demographic questions. To increase validity and accuracy of responses, participants were encouraged to use their Facebook account to obtain information about commenters to copy directly into the survey engine. All identifying information provided by the participant in the course of completing the survey was either removed automatically by the software when the survey was closed or manually by researchers prior to analysis.

3.2. Participants

Eight-eight students enrolled in an introductory course offered by the Department of Communication at a large Midwestern university participated in this study, receiving either required course credit or extra credit in return for participation. College students are an excellent population for our research given their geographic mobility and the transitional life stage they represent. College students have broken away from established high school relationships

¹ Given concerns of participant fatigue and that the study focused on between-subjects effects, certain constraints were artificially built into the research protocol. Specifically, we limited data collection to participants’ last three status message to ensure an adequate sample of status messages were obtained, and network interactions were limited to five commenters to obtain potentially socially-supportive interactions with others on Facebook. Although more data and interactions could have been selected, the protocol collected over a thousand data points and therefore allowed for sufficient statistical hypothesis analysis.

and are building new and unique relationships with college peers (Ellison et al., 2007) and are preparing to establish new relationships in the workforce. Moreover, when asked to recall when they sought social support in a time of crisis, many respondents identify college as a time when significant social support is sought and provided (Barrera et al., 1981). Given their proclivity toward social support and ubiquitous use of Facebook, we conducted a survey of college students inquiring about their Facebook network to test hypotheses.

Participants' age ranged from 18 to 49 ($M = 20.14$, $SD = 3.46$) and participants reported using Facebook an average of 4.85 years ($SD = 1.46$). Most participants were female ($n = 64$), with one participant not disclosing gender. Most participants were Caucasian ($n = 69$), but also were of Asian ($n = 6$), African American ($n = 3$), Latin and Native American ($n = 5$), and other or multiracial ($n = 5$) ethnicity. Participants were drawn from across academic standings, and included freshman ($n = 30$), sophomores ($n = 28$) and juniors ($n = 17$). Participants were drawn equally from those belonging to sororities or fraternities ($n = 45$) and those who did not ($n = 42$) with one participant not reporting. These demographics reflect the composition of course enrollment, save for oversampling Greek-affiliated students.

From these participants, 261 status messages were collected (as two participants had only recently joined Facebook, and had not yet generated three status messages), garnering 333 comments from participants' Facebook friends. Users rarely comment on others' status updates (Köbler, Riedl, & Vetter, 2010), and as such comments have been previously operationalized as forms of social support (Livingstone, 2008), and therefore perceptions of these other-created messages served as the corpus of data for analysis.

3.3. Measures

Relational Closeness was measured using a single-item pictographic measure derived from Aron, Aron, and Smollan's (1992) Inclusion of Other in Self (IOS) scale. The IOS consists of seven sets of two circles (labeled as "Self" and "Other") that do not overlap (1) and progressively overlapping until the final image (7) depicts almost complete overlap. Participants were instructed to "Select the picture below that best describes your friendship with [commenter's name]." Though a single-item measure, given its directness and simplicity it has been validated across several prior studies to operationalize socioemotional ties (e.g., Aron et al., 1992; Cropley & Reid, 2008), and Aron et al. (1992), demonstrate that the IOS serves as a reliable proxy for longer more cognitively taxing measures of relational closeness. All hypothesis tests sought to examine differences between particularly close and particularly nonclose relational partners. Only relational ties identified by the participant as particularly nonclose (i.e., valued either 1 or 2 on the 7-point IOS scale) or extremely close (i.e., valued either 6 or 7 on the 7-point IOS scale) were used for analysis. This bifurcation resulted in 54 close partner comments, 102 nonclose partner comments, and only 178 comments from moderately close partners were excluded from analysis.

Frequency of interaction variables were assessed using two interval-level items. To assess how frequently they interacted with each commenter face-to-face, respondents used a 6-point scale ranging from daily (1), weekly (2), monthly (3), few times a year (4), less than once a year (5), and never (6), indicating frequency of face-to-face interaction. Responses were then reverse coded so that higher values indicate greater frequency of interaction. Additionally, we were interested how often individuals reciprocated social support in the form of reciprocating comments on the other person's Facebook profiles. Respondents were therefore asked to indicate how frequently they responded to each commenter on Facebook using a 5-point scale ranging from Never (1) to Always

(5), indicating the frequency with which a participant reciprocates a commenter's behavior.

Effectiveness of social support received was assessed for each comment using a six item 7-point semantic differential scale created for this study. Item endpoint pairs included: "Not Supportive/Supportive," "Not helpful/Helpful," "Hurtful/Not Hurtful," "Positive/Not Positive," "Encouraging/Not Encouraging," and "Not Insulting/Insulting," with the last three items being reverse coded. The scale was reliable ($\alpha = .83$) and higher mean scores indicate greater perceived social support received from a comment.

Geographic distance between a participant and each tie was assessed using a single, bivariate question asking, "Does [commenter's name] live more than 50 miles from your home?" This measurement bifurcated respondents' social networks into "near" and "distant," and following previous research's (Campbell, Marsden, & Hurlbert, 1986; Wellman & Wortley, 1990) assessment. Following previous research suggesting media use, geographic distance, and relational closeness are related, (Ledbetter, 2008), we controlled for distance. Prior research has suggested 50 miles as a convenient cutoff for distinguishing when proximal FTF contact could be feasibly maintained on a daily basis (Johnson, Haigh, Becker, Craig, & Wigley, 2008).

Finally, descriptive data and demographic information were collected. Respondents self-indicated their age, biological gender, ethnicity, and membership in a social Greek organization.

4. Analysis

The first hypothesis predicted a greater proportion of nonclose over close relationships would respond to an individual's SNS status message with social support, operationalized as comments. To test H1, we compared the total number of comments to a participant's status message from nonclose relationships to the total number of comments from close relationships. Fewer close relationships provided comments ($n = 54$) on participants' status messages than nonclose relationships ($n = 102$). A chi-squared test of difference revealed this difference was significant, $\chi^2(1) = 14.77$, $p < .001$, in the expected direction. Thus, H1 was supported as more comments were provided by relationally nonclose individuals than close relational ties.

Due to the design of the data collection, there was concern that within-subject effects may unduly influence results and conflate between-subject differences in subsequent analyses. Consequently, analysis of covariance (ANCOVA) tests were conducted using each arbitrarily-assigned participant's identification number as a covariate in the remaining hypotheses. Covarying for the participant number enabled hypothesis testing for the predicted main effects after controlling for intra-participant effects. Before conducting each ANCOVA, a test of the homogeneity-of-regression assumption was used to evaluate the interaction between the covariate and independent variable. The result of each test is reported with the appropriate discussion.

The second and third hypotheses predicted relationships between relational closeness and offline and online interaction, respectively. To test H2, an ANCOVA was used to test for differences in between nonclose and close relationships in their frequency of face-to-face interaction, covarying for participant number and geographic distance (whether the person who liked/commented on the post lived more or less than 50 miles from the participant). The interaction between participant and frequency of face-to-face interaction was not significant $F(1,322) = .25$, $p = .62$; however distance did significantly interact with the frequency of face-to-face interaction, $F(1,322) = 109.63$, $p < .001$, $\eta^2 = .25$. Controlling for the effect of geographic distance, participants interacted more frequently face-to-face with social network

site friends who were relationally close, $F(7,322) = 22.23, p < .001, \eta^2 = .33$. Thus, H2 was rejected. Counter to our hypothesis, participants interacted more frequently face-to-face with close relational partners with whom they interacted on Facebook than nonclose relational partners with whom they interacted on Facebook, regardless of geographic proximity.

Hypothesis 3 addressed relational closeness and online interaction through mutual commenting responses, predicting individuals more frequently reciprocate online interaction with nonclose than close relational ties. ANCOVA results revealed no significant interaction within participants, $F(1,324) = 2.02, p = .16, \eta^2 = .01$. The ANCOVA also revealed a significant main effect of online interaction, but in the opposite of the expected direction. Counter to the hypothesis, participants reported responding more frequently to close ties via Facebook comments, $F(1,324) = 18.27, p < .001, \eta^2 = .28$. Therefore, H3 was not supported, with results in the opposite direction expected. A *post hoc* test revealed frequency of face-to-face interaction and frequency of online interaction were significantly correlated $r(333) = .26, p < .001$, indicating respondents reciprocated online interaction via mutual comments more frequently if they interacted more frequently offline.

Finally, our fourth hypothesis predicted nonclose relationships provided equally-effective social support in a SNS than close relationships. A paired samples *t*-test revealed that the social support of comments by nonclose relational ties ($M = 5.45, SD = 1.44$) was not significantly different from the perceived supportiveness of comments by close relational ties ($M = 5.84, SD = 1.02$), $t(154) = -1.74, p = .08$. Thus, H4 was supported. Interestingly, a *post hoc* one-sample *t*-test revealed that, regardless of relational closeness, social support efforts ($M = 5.72, SD = 1.28$) were perceived as significantly above the scale midpoint (4) in terms of supportiveness, $t(332) = 24.54, p < .001$, indicating comments from both relationally close and nonclose individuals are generally perceived as supportive in a SNS.

5. Discussion

Taken together, the tests of our hypotheses provide an interesting perspective into the nature of relational closeness, and the role of SNSs like Facebook in facilitating social support. To help make sense of the complex and partially-supported hypotheses, we begin our discussion by bridging hypotheses and connecting concepts. Then, we address the theoretical implications of our findings, specifically with regard to implications for relational closeness and for online social support. Finally, we examine potential limitations of the present research.

5.1. Interpreting the results

As research continues to understand how SNS use is altering human behavior, this research contributes by addressing how and from whom social support is obtained in Facebook. By drawing on previous research into relational ties and social support (Wright et al., 2010), the present study addressed the accessibility of support provided by relationally close and nonclose ties. Analysis revealed mixed support for hypotheses, suggesting more diverse sources of social support than originally predicted by weak tie theory (Granovetter, 1973) and more reflective of recent research into social support in emergent social media (Rains & Keating, 2011; Wright et al., 2010).

Within SNSs, network ties were not equally accessible: A greater proportion of social support was received via Facebook from relationally nonclose ties than relationally close ties (H1). This finding is a reflection of the greater proportion of nonclose partners in an individual's network (Granovetter, 1973), and the

relative ease with which these distant partners can be accessed online (Ellison et al., 2007; Garton, Haythornthwaite, & Wellman, 1997). Online tools allow individuals to transcend geographic and temporal boundaries through their virtual and asynchronous traits (Short, Williams, & Christie, 1976), and these characteristics are allowing individuals to access multiple partners of varied relational strength via SNSs (Marwick et al., 2011). In this regard, our findings suggest SNSs are strengthening nonclose relationships by making these individuals more accessible, while suggesting SNSs (which are assumed to make our social networks visible) are reducing the importance of relational closeness as a predictor of social support due to the relative rarity of close relationships within one's social network.

Moreover, comments provided by those who were relationally nonclose were perceived as just as socially supportive as comments from relationally close peers (H4). Given that equitable support is given by relationally close and nonclose ties (H4), and that nonclose ties are more accessible in that they are more abundant via SNSs (H1), these findings suggest that SNSs such as Facebook are effective means of seeking and obtaining meaningful social support. Consistent with Haythornthwaite (2005), SNSs may reflect another channel supporting relational maintenance behaviors, including the provision and reciprocation of social support. Moreover, like discussion fora (Wright et al., 2010) and blogs (Rains & Keating, 2011), SNSs appear to allow weak ties to provide meaningful social support – an affordance outside the purview of Granovetter's (1973) initial explication of the concepts of strong and weak ties.

Additionally, SNSs seem to be altering how individuals access relational ties online, without affecting face-to-face interactions with support providers. Individuals interact offline more frequently with close associates who provide support through Facebook than relationally nonclose associates, regardless of geographic distance (H2). Thus, it seems individuals still spend temporal and monetary resources offline with relationally close ties for transportation, social events, and commiseration; and concurrently reciprocate social support with close partners (H4), consistent with previous findings about offline social support (MacGeorge et al., 2011). Consequently, our findings suggest mediation via SNS may influence online behaviors, but not necessarily offline relationships, in regard to social support. These findings have implications for communication theory, both for their network implications and for how they alter our understanding of social support in SNSs. We address these implications in turn.

5.2. Implications

5.2.1. Relational ties

Granovetter's (1973) original conceptualizations of tie strength and relational effects do not cleanly map onto modern relationships mediated through SNS. Though considering ties based on network structure rather than relational closeness, Granovetter (1973) identified social support as a unique characteristic of strong ties. The present findings contribute to findings from relational and communication research (e.g., Albrecht & Adelman, 1987; Johnson et al., 2009; Walther & Boyd, 2002; Wright et al., 2010) that has acknowledged both relationally close and nonclose (often labeled strong and weak, respectively) ties may indeed provide social support. Our results therefore further demonstrate the need to consider how ties are conceptualized in research, including as position in a social network (Granovetter, 1973), type of relationship (Lin, Ensel, & Vaughn, 1981), and relational closeness (Wright & Miller, 2010). Strong ties continue to remain strong, providing the social support and frequent offline contact predicted by Granovetter (1973); but weak, nonclose relational ties seem to be increasingly able to provide similar social support through the

lightweight interaction available via social media (Ellison et al., 2007). Indeed, online social support from those with whom we have a weak connection still serves as a useful source of social support (i.e., no different from close relations and significantly above the mean for support).

The deviance from conceptualizations of tie strength grounded in network theory could be a function of the way we communicate with close relational partners, with whom we presumably utilize more channels to communicate (Wellman et al., 2001). That individuals receive effective support from nonclose ties, with whom fewer channels are used to communicate, would be consistent with the propositions of electronic propinquity theory (Korzenny, 1978). As individuals' options for channels are limited, they make greater use of the remaining communicative channels to maintain perceptions of psychological closeness, even while considering partners nonclose. Individuals maintaining nonclose ties using the limited channel of a SNS would account not only for the increased propinquity (and therefore strength of weak ties) as compared to earlier studies, but also explain why comments were equally-supportive from close and nonclose partners, as the limited channels normalized the propinquity afforded through the channel of Facebook.

5.2.2. Online (SNS) social support

Individuals interact with ties via CMC differently than face-to-face (Cummings, Butler, & Kraut, 2002). However, our results are not wholly consistent with previous findings of online social support. Results indicate relationally close and nonclose ties both provide social support on a SNSs, contradicting the notion that online weak ties are not equitable with offline network ties (Cummings et al., 2002), and indicating individuals are able to readily access diverse ties online. Results support the idea that Facebook, and other SNSs, “lower the barriers to participation so that students who might otherwise shy away from initiating communication with or responding to others are encouraged to do so through Facebook’s affordances” (Ellison et al., 2007, p. 1162). Our findings extend Ellison et al.’s conclusion by indicating SNSs do facilitate weak social relationships which can provide social support that is not statistically different from strong ties support on SNSs.

We also find support for Haythornthwaite’s (2005) claim that Facebook offer a multiplicity of channels to interact with close relational partners, though this channel has strength in nonclose peer interaction as well. Facebook users receive similar support from close and nonclose partners, but spend more time offline with close partners. Therefore, it seems SNSs are supplementing offline interactions with relationally close ties, but serving as a novel means of social support provision and acquisition from relationally weak ties, with whom offline interaction occurs less regularly.

Close partners provided proportionately less social support than nonclose partners; though this difference should be interpreted cautiously as the quality of social support provided by close and nonclose “Friends” did not differ. As the comments of nonclose and close partners provide equitable social support, regardless of content, the greater access to nonclose partners has significant implications for research into online social support. In many situations, such as life transitions including starting or leaving jobs, moving away to college, or within blended families, individuals may seek social support from known acquaintances rather than rely on support from deindividuated anonymous others (Craig & Johnson, 2011). Facebook provides a venue for such support, allowing access to both relationally close and nonclose others, thereby allowing individuals to access a spectrum of relational ties.

Wright and Miller (2010) contend that while individuals with “pressing health challenges” prefer weak-tie networks, those who are “relatively healthy individuals should be much more likely to prefer strong-tie support networks” (p. 513). Indeed, previous research has suggested individuals seek out close and nonclose

partners support disparately (e.g., Albrecht & Goldsmith, 2003; Griffith, 1985). However, our research suggests individuals receive effective and helpful social support from both nonclose and close partners when communicating online, but have greater access to nonclose others.

5.3. Limitations and future research

Although single-item measures are valid when assessing distinct concepts and when questions are easily-interpreted (e.g., Miller, Allen, Casey, & Johnson, 2000), the use of single-item measures to assess several key variables may have limited the reliability of individual construct measurement in the present study. Moreover, future work should seek to include additional variables not included in the present research (a component of a larger study) due to concerns of participant overload; specifically, the constructs of emotional intensity and intimacy present between participant and commenter, both additional and untested elements of tie strength, were omitted in the present study due to fatigue concerns.

A second opportunity for future research is to expand on the present operationalization of the forms of social support in SNSs and how individuals seek to obtain that support. Following previous research (Ballantine & Stephenson, 2011), this study used comments to one’s Facebook status as a unilateral form of social support and without consideration for the dyadic effect of a status message on the receipt of support. Just as our findings indicate that comments vary in their perceived social support, so to may individuals alter their social support seeking strategies on Facebook, strategically posting status messages or content to elicit social support. Further research could investigate how varying responses are perceived as either more or less socially supportive as a result of sender intentions. Future work may seek to codify specific status messages and assess how specific messages in one’s status may elicit varying degrees or types of social support while using a more comprehensive corpus of comments and likes beyond the limit of five of each imposed in our present research.

Another limitation of this study is the focus on relationships and communicative effects at the expense of exploring the technical features of the systems being explored, such as how Facebook may be used in conjunction with email or the ironic uses of “likes” on Facebook to indicate support. As Sawhney (2007) explains, “Researchers tend to study individual technologies. But the fact is that technologies are almost never used in isolation” (p. 398). Though we found online and offline interaction varied and reified that social support can be obtained from online interaction, we did not examine how technology serves as a situated part of social interaction with partners of varying closeness. Future research should examine this compounding of communication modalities that Sawhney (2007) calls technology clusters.

6. Conclusion

Though recent research indicates individuals can obtain social support via SNSs (Olson et al., 2012), little is known about the process and sources of that support. As technology alters connection strategies (Ellison et al., 2007), scholars have focused on the capabilities of weak relationships (e.g., Ellison et al., 2007; Granovetter, 1982) without consideration of the effect of technology on close relationships. This research sought to redress this paucity by empirically comparing how close and nonclose partners are accessed online, specifically in the popular social network site, Facebook, and how they are used to obtain social support. This research demonstrates social support is obtained from both relationally close and nonclose ties via SNSs, and that the larger

proportion of weak ties in one's social network can provide equitable (yet more readily-accessed) social support than relationally close ties. In short, SNSs enable support to be given across distance, with relatively low costs, and from one's broad social networks rather than merely by relationally close ties.

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