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The Strength of Strong Ties: Media Multiplexity, Communication Motives, and the Maintenance of Geographically Close Friendships

Nathan Miczo, Theresa Mariani, & Crystal Donahue

Media multiplexity proposes that tie strength drives patterns of media use, more so than the reverse. This study examined connections between friendship quality, CMC motives, and relational maintenance. Participants (N = 350) completed measures of maintenance behaviors, CMC motives, friendship satisfaction and solidarity. Number of channels was weakly related to solidarity. Satisfaction and solidarity had relationships with some of the motives and all of the maintenance behaviors. Support and distance motives were positively and negatively related to maintenance behaviors, respectively.

Keywords: CMC; Computer Mediated Communication; Friendship; Interpersonal Communication; Media Multiplexity; Motives; Relational Maintenance

The advent of computer-mediated communication (CMC) has transformed the relational landscape of people's lives. An emerging consensus suggests two things about the interpersonal uses of CMC: first, the Internet is not "out there" in a cyberspace separate from the other spaces of our lives; second, if online and offline relationships are often indistinguishable, offline relationships are not somehow more "real" than

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online ones (Baym, Zhang, & Lin, 2004; Haythornthwaite & Hagar, 2005). Rather, the Internet and the CMC that it facilitates have permeated people's lives, and they have responded by adapting it to their purposes. Geographically close relationships (GCRs), which include an offline component to which online communication is typically added, are a suitable place to examine how CMC is incorporated into everyday relational maintenance. One relationship that remains understudied is friendship. Accordingly, this study will utilize Haythornthwaite's (2002, 2005) concept of media multiplexity to explore how friendship affects motives for using CMC, as well as the relationships between CMC motives and relational maintenance behaviors.

Friendship

Friendship is a voluntary relationship between equals sustained through reciprocal resource exchanges (Dainton, Zelle, & Langan, 2003). Friendship depends critically upon the efforts of both parties to maintain the relationship even if, overall, levels of maintenance are less relative to other close relationships (Canary, Stafford, Hause, & Wallace, 1993). Friendship maintenance activities include self-disclosure, sharing activities, having positive interactions, and mutual supportiveness (Fehr, 2000). Many of these behaviors can be as easily conducted via computer as face-to-face (Ledbetter, 2010). According to Haythornthwaite (2005), the behaviors that characterize friendship (and close relationships more generally) define that relationship as a "strong tie" (see p. 128). However, the sociological notion of tie strength (Baym & Ledbetter, 2009) conflates the closeness of the relationship with the degree of relationship satisfaction. That is, friends can be (un)satisfied across varying levels of closeness and such differences within the friendship relationship may affect media use and relational maintenance. Accordingly, this study will examine solidarity and satisfaction, as well as the interaction between the two.

Media Multiplexity

The basic idea of Haythornthwaite's (2005) concept of media multiplexity is that the stronger the tie between dyads, the more "means of communication" (p. 130, italics omitted) are used to maintain the relationship. Three assumptions undergird the notion of multiplexity: 1) the nature of the tie will be reflected in the mediated environment; 2) online interactions have the potential to affect the tie as much as offline interactions; 3) "it is the tie that drives the number and type of exchanges, not whether the tie is maintained on or offline, or via any combination of the two" (Haythornthwaite, 2002, p. 388). Her social network approach, focusing on differences between strong, weak, and latent ties, generally supports the proposition that strong ties incorporate more media into their existing relationship. Igarashi, Takai, and Yoshida (2005), who specifically examined friendship networks, similarly found that individuals utilizing both face-to-face and cell phone text messaging in their friendships reported higher intimacy compared to those who only interacted

face-to-face. The first hypothesis derives from the basic premise of multiplexity that more media are used in closer relationships:

H1: Number of media used in a friendship is positively related to closeness and satisfaction.

Communication Motives

Research on interpersonal communication motives originates from a uses and gratification paradigm, which argues that people use media for their own purposes (Rubin, 1994). These purposes are motives, which provide a link between need satisfaction and the formation of communicative goals (Rubin & Martin, 1998). Numerous studies have examined the reasons people use the Internet and/or other forms of CMC. Many of these studies, however, have either explored the factor structure of CMC motives (Flanagin, 2005) or examined motives in relation to the broad issue of CMC usage (Pearson, Carmon, Tobola, & Fowler, 2009; Sun, Rubin, & Haridakis, 2008), rather than focusing more narrowly on motives for using CMC in existing relationships. Although these studies have established that CMC can be motivated by interpersonal-relational purposes, multiplexity requires understanding how the tie between partners shapes their reasons for communicating. The second hypothesis is guided by assumption three of Haythornthwaite's (2002) approach:

H2: Closeness and satisfaction predict motives for using CMC to communicate with friends.

Relationship Maintenance

Many people report using CMC to maintain their current relationships rather than developing new online relationships (Bryant, Sanders-Jackson, & Smallwood, 2006; Ramirez & Broneck, 2009). Understanding this relational dynamic requires examining how CMC use is situated in relation to maintenance activities. Dindia (2003) outlined four definitions of relationship maintenance: to keep a relationship in existence; to keep a relationship in a specified state or condition; to keep a relationship in a satisfactory condition; and, to keep a relationship in repair. Given this plethora of definitions, she argued that researchers should make their own definition explicit. Further, Stafford (2003) argued for using the term "maintenance behaviors" as inclusive of both strategic (efforts undertaken with a high degree of intentionality) and routine (everyday taken-for-granted activities of the relationship) maintenance behaviors. Accordingly, in this study, we define relationship maintenance as the planned and routine things people do to keep their relationship in a desired state. Characteristics of friendship, then, ought to predict patterns of maintenance, leading to the following hypothesis:

H3: Closeness and satisfaction predict friendship relational maintenance behaviors.

When studying the relationship between CMC motives and maintenance behaviors, several approaches are possible. One possibility involves including CMC in

the measurement of maintenance behaviors as simply one more way of keeping the relationship in a desired state (e.g., Canary et al., 1993). Another option involves wording a relational maintenance questionnaire to specifically reflect CMC usage (Ledbetter, 2010). This approach assumes that sending a message via CMC qualifies as relational maintenance (Rabby & Walther, 2003). A third possibility treats that assumption as an empirical question by asking how people use CMC to keep their relationship in a desired state. Answering this question requires disentangling reasons for using CMC from the maintenance behaviors themselves. It would then be possible to explore if certain motives are related to certain ways of keeping a relationship in a desired state.

RQ1: How are CMC motives related to maintenance behaviors?

Method

Participants

Participants were 350 undergraduates taking Communication classes at a medium-sized Midwestern university (3 surveys were eliminated due to extensive missing data) (48% male, 52% female; $M_{\text{age}} = 20.0$, $SD = 2.27$, range 18–37 years; race/ethnicity Caucasian 88%, African American 7%, Mexican American/Latino 1%, Asian American and Native American [less than 1% each], and Other 2%; one participant did not report demographic data. Data were also collected on friends. Friends being reported on: 59% female, 41% male (2 participants did not provide sex of friend) (M_{age} of friend = 20.44, $SD = 2.67$, range 16–43 years).

Participants were asked to self-report their friendship category: 228 (66%) reported the friendship as “best friends,” 107 (31%) reported the friendship as “close friends,” and 12 (3%) reported the friendship as “casual friends” (3 participants did not provide data on friendship category).

Self-reported CMC usage revealed the following: 266 (76%) participants used either e-mail or instant messaging (IM) to communicate with their friend, 84 (24%) did not use either form; 49 (14%) used only e-mail with their friend, 58 (16.6%) used only IM; 159 (45.4%) reported using both e-mail and IM to communicate with their friend.

Procedures

Participants completed a survey concerning their use of CMC to maintain a GCR. Adapting Finn and Powers’s (2002) descriptions, the survey asked students to “choose one friend that you can see face-to-face on a regular basis that you would consider to be a close or best friend, meaning someone that you have more in common with than most other people” and to write down that person’s initials. The first section of the survey then contained relationship maintenance items, specifying that they be answered based on “how you interact face-to-face with the friend that you listed above.”

The second and third sections consisted of e-mail and IM use, respectively. These two sections began with a filter question asking whether or not the person used the

type of technology to maintain the friendship. For each type of technology, there was a short survey concerning medium characteristics that is not included in the present investigation. Individuals who indicated “yes” to the form of technology answered those questions, while participants who answered “no” skipped the section and went on to the next section.

The fourth section contained the CMC motives scale which reminded participants to keep in mind the friend “noted previously.” This was followed by items assessing friendship satisfaction and feelings of solidarity. The final section of the survey contained demographic questions about the participant as well as his/her friend.

All continuous variable measures used a 7-point Likert-type scale (1 = *Strongly Disagree* and 7 = *Strongly Agree*). The survey was approved by the Institutional Review Board of the University and participants received extra credit in exchange for their participation.

Measures

Relationship maintenance

Friendship maintenance strategies were derived from existing typologies of maintenance behaviors (e.g., Canary & Stafford, 1992; Dainton & Aylor, 2002; Dainton & Stafford, 1993) and adapted to the friend relationship. The original measure included the strategies of assurances, openness, positivity, social networks, and shared activities. Confirmatory factor analysis, however, revealed a poor fit for this five-factor model, χ^2 (424, $N = 350$) = 1640.95, $p < .01$, RMSEA = .09 (90% CI .09–.10), CFI = .82. An exploratory factor analysis with varimax rotation produced four factors which together accounted for 60.64% of the variance.¹ Factor 1, accounting for 43.53% of the variance, consisted of nine items from the assurances and openness subscales (e.g., “I tell my partner how much he/she means to me”) and was labeled *openness* ($\alpha = .92$, $M = 4.96$, $SD = 1.22$). The second factor (9.34% of variance) contained eight items from the positivity, sharing activities, and assurances subscales (e.g., “I attempt to make our interactions very enjoyable”) and was labeled *togetherness* ($\alpha = .90$, $M = 5.94$, $SD = .87$). Five items from the positivity subscale comprised the third factor (4.20% of the variance) (e.g., “I try to be fun and interesting with him/her”), which was labeled *positivity* ($\alpha = .79$, $M = 5.26$, $SD = .95$). Due to poor reliability, the fourth factor (3.57% of the variance) was not created into a variable. The final three-factor model was subjected to a CFA which revealed improved model fit, χ^2 (206, $N = 350$) = 643.18, $p < .01$, RMSEA = .08 (90% CI .07–.09), CFI = .90.

Motivations for CMC use

Motives for using CMC in the friendship were measured with five of the six motives (inclusion, affection, control, escape, pleasure) from the interpersonal communication motives model (Rubin & Martin, 1998).² Items were derived from the interpersonal communication motives scale (Rubin, Perse, & Barbato, 1988) and the television viewing motives scale (Rubin, 1983), modified to create five-item subscales for each

motive, and then adapted to refer to a specific relational partner. The stem phrase for the final scale was “I use computer-mediated communication . . .” Confirmatory factor analysis suggested a poor fit for the original five-factor model, χ^2 (265, $N=292$) = 900.62, $p < .01$, RMSEA = .09 (90% CI .08 – .10), CFI = .82. Follow-up exploratory factor analysis with oblique rotation revealed five factors, which together accounted for 63.40% of the variance. The first factor, labeled *support*, contained six items from the affection and inclusion subscales (e.g., “To let this person know I care about him/her,” “Because I just need to talk about my problems sometimes”) (34.72% of variance, $\alpha = .87$, $M = 4.74$, $SD = 1.19$); the second consisted of the five items from the *escape* subscale (e.g., “To get away from what I am doing”) (9.85% of variance, $\alpha = .85$, $M = 4.67$, $SD = 1.32$); the third factor contained three items from the control subscale, clearly reflecting attempts to regulate contact with the target, and was named *distance* (e.g., “To keep some distance in our relationship”) (7.13% of variance, $\alpha = .75$, $M = 3.12$, $SD = 1.35$); Factor 4 consisted of the five items from the *pleasure* subscale (e.g., “Because it’s stimulating”) (6.70% of variance, $\alpha = .87$, $M = 4.47$, $SD = 1.17$); the last factor consisted of the remaining two items from the control subscale, reflecting a compliance-seeking motive, and was labeled *compliance* (e.g., “Because I want this person to do something for me”) (5.01% of variance, $\alpha = .74$, $M = 3.64$, $SD = 1.34$). A second CFA revealed improved model fit, χ^2 (179, $N = 292$) = 513.83, $p < .01$, RMSEA = .08 (90% CI .07–.09), CFI = .89.

Friendship satisfaction

Friendship satisfaction was measured with Johnson’s (2001) four-item scale of friendship satisfaction (e.g., “I am generally satisfied with this friendship”). A CFA to assess unidimensionality of the scale revealed adequate fit, χ^2 (2, $N = 347$) = 5.38, $p = .07$, RMSEA = .07 (90% CI .00–.14), CFI = .99. The resulting variable was reliable ($\alpha = .83$, $M = 6.00$, $SD = 1.01$).

Friendship solidarity

Solidarity, or feelings of closeness, was assessed with Wheelless’s (1978) 20-item measure of interpersonal solidarity (e.g., “We are very close to each other”) (two items were dropped due to missing response options). A CFA to assess unidimensionality revealed poor model fit, χ^2 (135, $N = 345$) = 675.50, $p < .01$, RMSEA = .11 (90% CI .10–.12), CFI = .79. Follow-up exploratory and confirmatory factor analyses failed to yield a better solution. Therefore, the 18-item version of the scale was retained for analyses ($\alpha = .91$, $M = 5.82$, $SD = .86$).

Results

Hypothesis 1

Hypothesis 1 predicted that the number of channels used in the friendship is positively related to friendship closeness and satisfaction. The correlations between

number of channels and satisfaction, $r(350) = .05$, $p = .35$, and the number of channels and solidarity were not significant, $r(350) = .10$, $p = .06$. Thus, H1 was not supported.

Hypothesis 2

Hypothesis 2 predicted that closeness and satisfaction predict friendship CMC motives. Following procedures described by Aiken and West (1991), two-step hierarchical regression analyses were employed to test this hypothesis. Results of those analyses are presented in Table 1. For the support motive, the model at Step 1 was significant, $F(2, 289) = 19.14$, $p < .01$, with solidarity as a significant predictor (Beta = .40, $p < .01$). The model at Step 2 was significant, $F(3, 288) = 12.72$, $p < .01$, but the interaction term was not significant. For escape, both models were significant, Step 1 $F(2, 289) = 4.82$, $p < .01$ and Step 2 $F(3, 288) = 5.95$, $p < .01$, with the interaction being the only significant predictor (Beta = $-.20$, $p < .01$). Following Aiken and West, the interaction was examined by computing the slope of the relationship between satisfaction and escape at low (one standard deviation below the mean, .25, $t(288) = 2.05$, $p < .05$), medium (the mean, .13, $t(288) = 1.24$, $p > .05$) and high (one standard deviation above the mean, .01, $t(288) = .10$, $p > .05$) levels of solidarity. Interpreting this pattern of results suggests that at low levels of closeness, friendship satisfaction predicted the use of CMC for purposes of escaping some other activity. For the distance motive, the model at Step 1 was significant, $F(2, 289) = 17.01$, $p < .01$, with satisfaction as a negative predictor of the distance motive (Beta = $-.27$, $p < .01$). Although the model at Step 2 was significant, $F(3, 288) = 12.28$, $p < .01$, the interaction term was not a significant predictor.

Table 1 Hierarchical Multiple Regression Analyses Predicting CMC Motives from Satisfaction and Solidarity

Predictor	Support		Escape		Distance		Pleasure		Compliance	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	.12**		.03**		.11**		.02*		.01	
Satisfaction		-.08		.10		-.27**		.07		-.08
Solidarity		.40**		.09		-.07		.10		-.01
Step 2	.00		.03**		.01		.01		.00	
Satisfaction		-.08		.03		-.31**		.02		-.10
Solidarity		.39**		.03		-.10		.06		-.03
Satisfaction \times Solidarity		-.01		-.20**		-.11		-.13		-.06
Total R^2	.12**		.06**		.12**		.03*		.01	
<i>n</i>	291		291		291		291		291	

* $p < .05$. ** $p < .01$.

Table 2 Hierarchical Multiple Regression Analyses Predicting Relational Maintenance Behaviors from Satisfaction and Solidarity

Predictor	Openness		Togetherness		Positivity	
	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	.28**		.37**		.19**	
Satisfaction		-.13 [†]		.18**		.20**
Solidarity		.62**		.47**		.27**
Step 2	.01*		.01**		.00	
Satisfaction		-.09		.13*		.21**
Solidarity		.66**		.42**		.28**
Satisfaction \times Solidarity		.14*		-.14**		.04
Total R^2	.29**		.38**		.19**	
<i>n</i>	349		349		349	

[†] $p = .05$. * $p < .05$. ** $p < .01$.

Regarding the pleasure motive, though both models were significant, Step 1 $F(2, 289) = 3.61$, $p < .05$ and Step 2 $F(3, 288) = 3.48$, $p < .05$, there were no significant predictors of the motive. For the compliance motive, the models were not significant, Step 1 $F(2, 289) = 1.05$, $p = .35$ and Step 2 $F(3, 288) = .92$, $p = .43$, with no significant predictors. Overall, H2 received partial support. Friendship closeness predicted more use of CMC for support, while satisfaction predicted less use of CMC to create distance in the relationship.

Hypothesis 3

Hypothesis 3 predicted that closeness and satisfaction are related to friendship maintenance behaviors. These relationships were examined using the same hierarchical regression procedures outlined above and results of the analyses are presented in Table 2. For openness, the model at Step 1, $F(2, 347) = 66.06$, $p < .01$, was significant, with solidarity being a positive predictor (Beta = .62, $p < .01$) and satisfaction negatively predicting openness at the .05 level of significance (Beta = -.13). The model at Step 2, $F(3, 346) = 46.88$, $p < .01$, was significant, with the interaction term being a significant positive predictor. The interaction was examined using the same procedures described above. The slopes of the relationship between satisfaction and openness across levels of solidarity were as follows: low $-.25$, $t(346) = -3.25$, $p < .01$, medium $-.16$, $t(346) = -1.90$, $p > .05$, and high $-.07$, $t(346) = -.83$, $p > .05$. At low levels of relationship closeness, satisfaction was associated with less openness. For togetherness, both models were significant, Step 1 $F(2, 347) = 103.31$, $p < .01$ and Step 2 $F(3, 346) = 72.52$, $p < .01$. At Step 1, both satisfaction (Beta = .18, $p < .01$) and solidarity (Beta = .47, $p < .01$) were positive predictors of togetherness. At

Step 2, however, the interaction term was a significant negative predictor of togetherness. The slopes of the relationship between satisfaction and togetherness across levels of solidarity were as follows: low .21, $t(346) = 3.82$, $p < .01$, medium .15, $t(346) = 2.73$, $p < .01$, and high .09, $t(346) = 1.64$, $p > .05$. Thus, at both low and medium levels of solidarity, satisfaction was related to spending time together with the friend. Regarding positivity, both models were significant, Step 1 $F(2, 347) = 41.07$, $p < .01$ and Step 2 $F(3, 346) = 27.49$, $p < .01$, with both satisfaction (Beta = .20, $p < .01$) and solidarity (Beta = .27, $p < .01$) being positive predictors. Overall, H3 was supported.

Research Question 1

Research question 1 concerned associations between CMC motives and relational maintenance behaviors. Correlations between the variables are presented in Table 3. The support motive and the distance motive were positively and negatively related to all three maintenance strategies, respectively. The escape motive was positively correlated with the togetherness strategy. There were no significant correlations between the pleasure and compliance motives and any of the maintenance strategies.

Discussion

The purpose of this study was to examine the idea of media multiplexity (Haythornthwaite, 2005) that tie strength drives patterns of media use. The first hypothesis was predicated on Haythornthwaite's (2005) finding that those with

Table 3 Correlations between CMC Motives, Maintenance Behaviors, and Relational Outcomes

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
<i>CMC Motives</i>										
1. Support	—									
2. Escape	.42**	—								
3. Distance	.21**	.31**	—							
4. Pleasure	.55**	.48**	.30**	—						
5. Compliance	.29**	.41**	.37**	.30**	—					
<i>Maintenance Behaviors</i>										
6. Openness	.41**	.05	-.16**	.11	.08	—				
7. Togetherness	.22**	.15**	-.30*	.11	-.05	.60**	—			
8. Positivity	.27**	.02	-.22**	.08	-.11	.60**	.66**	—		
<i>Relational Outcomes</i>										
9. Satisfaction	.22**	.17**	-.32**	.14*	-.08	.33**	.53**	.40**	—	
10. Solidarity	.34**	.17**	-.27**	.15*	-.07	.52**	.60**	.42**	.74**	—

$n = 292$ for correlations between maintenance behaviors and CMC motives.

* $p < .05$. ** $p < .01$.

strong ties used more channels to communicate with each other. Although nonsignificant, the relationship trend between solidarity and number of channels is consistent with other research (Baym & Ledbetter, 2009; Igarashi et al., 2005) and alludes to the basic premise of multiplexity. Perhaps including more channels (e.g., text messaging, social network sites) or using a less crude measure of channel use in future research would produce a stronger relationship.

The structure of motives that emerged differed from prior research, which has not examined relationship-specific motives. The support factor clearly referred to the giving and seeking of help, encouragement, and expression of concern via CMC. The finding that solidarity positively predicted this motive supports Haythornthwaite's (2002) contention that people with close ties use CMC for a range of informational and emotional exchanges. The distance factor involved using CMC to regulate the amount of contact. Those who were more satisfied with the friendship were less likely to report this motive. The escape motive references the use of CMC with the friend to avoid other activities. Revealingly, for those who were less close, this motive was related to relational satisfaction. Note that these concerns are more self-focused and may involve superficial exchanges relative to the support motive. Such a view supports the idea of multiplexity that close ties are sustained via a range of activities while also illustrating that close ties are not all of one type. The lack of significant predictors for the pleasure motive is surprising but may suggest that using CMC to contact friends is not a "stimulating" use of the medium. Finally, the lack of relationships between friendship characteristics and compliance is consistent with Ramirez and Broneck (2009), who found that IM usage did not result in self-reported change in attitudes or feelings. Overall, consistent with multiplexity, friendship characteristics (i.e., tie strength) were related to different motives for using CMC; the fact that different aspects of the relationship were related to different motives suggests that strong ties may be more variable than weak ones.

The three factors that emerged among the maintenance items mirror previous factors reported by others (Fehr, 2000; Oswald, Clark, and Kelly, 2004). As expected, friendship characteristics were generally positively related to maintenance behaviors. In this study, openness referred to talk about the relationship itself. Although the slopes were negative across all levels of solidarity, the association was only significantly different from zero for low levels of solidarity. Thus, those who were not as close to their friend were more satisfied when there was less discussion about the relationship itself. For togetherness, the interaction suggests that at medium and low levels of solidarity, spending time together is important to satisfaction. The lack of significance for high levels of closeness supports Ledbetter's (2008) finding that face-to-face interaction is an unstable predictor of intimacy. In other words, those who are more close may not need to spend time together for their relationship to persist satisfactorily. Finally, both satisfaction and solidarity predicted using more positivity in the relationship. The pattern of correlations between motives and maintenance behaviors suggests that using CMC to give and receive support occurs in a context of openness, positivity, and spending time together, while using it to regulate distance is related to less of those behaviors.

Limitations

This study is limited in its focus on college students. Although the diffusion of new technologies among adolescents and young adults renders the college student sample a sensible one, noncollege adolescents and older adults may utilize new technologies differently. A second limitation concerns the lack of unidimensionality of the solidarity measure. Future research is needed to specify the components of the construct and refine the measure to increase its utility. The changing landscape of new technologies constitutes a third limitation. E-mail and IM remain common among college students but they are increasingly complemented by other forms of CMC. Finally, in the absence of consensus within both the motives and maintenance literature on the exact nature of the variables of interest, the measures used in this study are different from what might be found in other studies.

Conclusions and Future Directions

This study demonstrated that CMC friendship motives are related to relational maintenance behaviors, and that tie strength affects both. This suggests the utility of applying multiplexity to close relationships to understand how partners use CMC to maintain their relationships. The results of this investigation raise further questions. First, if intimacy is related to channel incorporation, then changes in closeness or satisfaction should affect media usage in that relationship. Conversely, channel loss should affect some friendships. Longitudinal research would be needed to assess the impact of channel loss on friend networks over time. Further, Haythornthwaite (2002) suggested that online and offline behaviors are not necessarily comparable (i.e., there is no assumption that online support would be evaluated the same as offline support) (cf. Ramirez & Broneck, 2009). Future research could explore this assumption, possibly by focusing on the content of messages sent via CMC (Grote, 2005). Finally, future research should explore a broader range of strong and weak ties and motives for CMC via various media. Any theory of CMC and relational maintenance will need to account for why people choose any given medium, in addition to the functions being served by their efforts. The multiplexity construct holds promise in that direction.

Notes

- [1] Details of the factor analysis are available from the first author.
- [2] The decision to eliminate relaxation was based on three considerations: the growing length of the survey, conceptual overlap with escape and pleasure items, and the fact that the passivity of relaxation is belied by the activity implied by *using* CMC.

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