

I'm Not Just Wasting Time Online! Test of Situational Awareness: An Exploratory Study

Rebecca L. Badawy
University at Buffalo
rlbadawy@buffalo.edu

Michael A. Stefanone
University at Buffalo
ms297@buffalo.edu

Robyn L. Brouer
Canisius College
robyn.brouer@canisius.edu

Abstract

We explored the relationship between self-monitoring and the interaction of other-based reciprocity and online social network awareness on bridging social capital. We predicted that self-monitoring would be positively related to understanding other-based reciprocity, and that online social network awareness would moderate and strengthen the relationship between other-based reciprocity and bridging social capital. In doing so, we provide theoretical and empirical support for a concept called situational awareness, which is an individuals' generalized awareness of their social network environment, operationalized through the two components of understanding other-based reciprocity and online network awareness. The results from our study (N=255) support that high self-monitors understand others' reciprocity beliefs and higher levels of online bridging capital are the consequence of situational awareness.

1. Introduction

Interest in and research on social networks continues to grow, particularly in the context of online social networks and social capital. Much literature on strategic image management online, the strategic management of *other* provided information online [41], and even intentional uses of social network sites (SNSs) for information seeking about one's social contacts online has been published in recent years [48].

There is also research on SNSs and access to social capital, or the resources embedded in your social network. For example, Williams [52] created scales specifically for the measurement of online social capital and included bridging capital, having access to diversity of contacts, and bonding capital, reinforcing strong tie relationships of close friends and family.

However, relatively little is known about the strategic behavior approaches to online social network development and maintenance. The first step in this developing program of research is to understand the

internal motivations and abilities of individuals. This is known as *declarative knowledge* in social cognitive circles. That is, what individuals believe they do and know, as well as a belief in their capabilities. Eventually, research will evolve to address *procedural knowledge* whereby individuals actually apply their declarative knowledge in the pursuit of social goals. The first step, however, is to systematically investigate internal, trait-based explanations of social network development and maintenance.

In this manuscript we explore a concept involving individuals' generalized awareness of their social network environment, called *situational awareness*. Specifically, situational awareness involves not only understanding your own connections and equity but the relationships and equity of others in your network (e.g., My friend Bill did Bob a favor, and I know that Bob will want to pay Bill back). We operationalize this as the dedication of cognitive resources to one's social environment in the context of goal pursuit. Theoretically we situate this study in the context of Lin's [29] work on instrumental action.

Individuals with situational awareness should demonstrate confidence in their ability to understand groups and complex situations, and they should report having sophisticated knowledge of the rules and norms that guide interpersonal relationships. After all, knowledge about equity and balance in *others'* relationships is a critical element in developing situational awareness.

Extant research addresses cognitive and behavioral components regarding relationships. For example, Ferris, Perrewe, and Douglas [11] discuss social effectiveness, which they suggest is an umbrella term for a wide range of concepts related to generalized social intelligence. They note that the cognitive component is akin to savvy, while the behavioral component allows individuals to act on their understanding of others.

Social intelligence then is defined as the ability to understand people and social situations. Understanding people involves accurate evaluation of their feelings and emotions [34; 49]. However, little research has

been devoted to understanding macro-, or *network-level* social intelligence of the structures and states of interpersonal relationships around a focal actor (or, *ego*). That is, most social intelligence and social effectiveness measures examine how the self relates to others (e.g., political skill, self-monitoring, emotional intelligence). Yet, a true understanding of situational awareness, and thusly social effectiveness, must lie in understanding the relationships of others in one's networks (e.g., not directly related to oneself).

Our goal is to advance a construct we call situational awareness and begin to evaluate the utility of its application. Situational awareness is not limited to individuals who can effectively read social situations. We are interested in people who devote cognitive resources to understanding and managing their social universes in ways that yield higher levels of access to social capital, through their understanding of the relationships between others.

We propose that the *self-monitoring* trait is the prerequisite starting point for such individuals as this trait represents the tendency to examine their behavior in relation to others. Those who have the innate desire to understand the social environment, such as those with high levels of self-monitoring, will be more likely to not only pay attention to their own personal relationships, but also the relationships and norms being displayed in their broader network.

We argue that those individuals driven to maintain situational awareness devote cognitive resources to noticing and remembering information about the people in their social sphere. This will involve an understanding of generalized, *other-based* reciprocity norms. Here we are interested in whether participants understand the extent to which *their friends* subscribe to the norm of reciprocity. During the pursuit of social capital resources, those individuals who subscribe to fundamental rules guiding social exchange processes should be more successful at cultivating social resources, and are ultimately better candidates for 'friendship.'

Further, not only should individuals be aware of their network connections' reciprocity norms, but they should also be aware of the relationships *between* others in their social networks. In other words, situationally aware individuals should maintain knowledge about 'who knows who' around them. We refer to this construct as *network awareness*. Together these two components of situational awareness will impact the self-monitoring-bridging capital (e.g., social capital) relationship. Specifically, we propose that other-based reciprocity norms will mediate the relationship between self-monitoring and bridging capital, and network awareness will moderate the

relationship between other-based reciprocity and bridging capital.

Therefore, access to social capital will not be gained by just an understanding of other-based reciprocity. Rather network awareness is required in order to gain the benefits from the knowledge of other-based reciprocity. Thus, the combination of (a) an understanding of other-based reciprocity norms, and (b) network awareness of 'who knows who' should yield situational awareness. The combination of these two variables reflect those who actively keep track of who knows who, and *who owes who* among their social network contacts. In this way situationally aware individuals are able to keep tabs on the relationship equity and balance statuses of those around them. This kind of situational awareness should translate into greater access to opportunities for instrumental action, leading to bridging capital. Opportunity, then, is operationalized at the network level. We adopt Lin's [29] theory of *instrumental action* as the guiding framework throughout this manuscript.

2. Background

Social scientists examining self-interest as a motivation for social action [6] suggest people make what they believe to be rational choices while pursuing objectives [36]. However, people are not always objective, systematic beings [see for example, 12]. Yet, rational choice theorists [e.g., 22] outline a process in which people weigh outcomes based on alternative actions and act based on the optimal solution to cost – benefit analyses. This approach suggests that people actively monitor and process environmental stimuli with the purpose of maximizing their individual outcomes.

Much of the literature on self-interest guided behavior grew out of research on status attainment [e.g., 4]. The theory of instrumental action offers an alternative perspective by explicating the nature of relationships and embedded resources. While status attainment was operationalized as a function of "given" social network properties, status attainment can also be viewed as a product of strategic relationship choices.

Lin's [29] theory of instrumental action suggests that people actively pursue opportunities and resources for their personal benefit. People have an intrinsic tendency to negotiate their social environments in ways that maximize chances for personal gain.

Lin and Dumin [30] focused explicitly on factors affecting *access* to social resources, conceptualized as the way social networks connect them with a variety of different positions. They operationalized strength of

ties based on the nature of the relationship; relatives were coded as strong ties, friends as moderate strength ties, and acquaintances as weak ties. As expected, social contacts with high positions in formal networks and weaker tie affiliation (both friends and acquaintances) provided better access to prestigious job opportunities. Further, weak ties were more instrumental for people whose original positions in the network were relatively low.

Taken together, the evidence summarized above suggests that structural characteristics of ego networks and positions in social hierarchies influence access to and use of resources embedded in social networks, or networked resources [51]. Overall, weak ties have greater instrumental functionality than strong ties, regardless of the structural location of those weak ties. We contend that the real instrumental utility of SNSs is the expansion and maintenance of weak ties, *bridging* social networks. However, little is known about the kinds of individual traits that predict strategic behavior, consistent with the theory of instrumental action. Self-monitoring offers a promising starting point.

3. Self-Monitoring

Self-monitoring is a social skill-based trait defined as “self-observation and self-control guided by situational cues to social appropriateness” [43, p. 526]. Consistent with Ferris et al.’s [11] conceptualization of social intelligence, there are two main components in the self-monitoring construct: (1) the ability to effectively understand the environment and (2) the flexibility to function effectively within the environment. Snyder describes the goals of self-monitoring to include accurate communication through presentation, masking inappropriate emotions and reactions, and demonstrating responses that are considered appropriate in a situation. As such, self-monitors achieve their goals through focusing on others in the social situation and by acting in a manner that effectively communicates intended presentations [21; 23]. Indeed, self-monitors have been referred to as social chameleons because they are able to understand and adapt to their environment so to suit the different social conditions [50].

The study of self-monitoring originated with questions about how certain individuals are able to present themselves more effectively in social situations than others [e.g., 43]. Early research demonstrated that high-self monitors are better able to respond to situational changes [32; 45], which is attributed to their ability to understand their social environment. Because of this social sensitivity [e.g., picking up on the expressive behaviors of others; 28], self-monitors have

been shown to be “attentive to the behaviors of others to obtain clues for their own impression management” [50, p. 352, referencing 13]. High self-monitors are focused on the social situation, which some have termed “other-oriented” [e.g., 23; 24].

As a trait-like personality construct, self-monitoring has been studied in a wide array of fields dealing with interpersonal relationships [see 14 for review]. Self-monitoring has been demonstrated to impact friendship and romantic relationships [44; 46], consumer behavior [9], and organizationally relevant outcomes such as job performance, leadership, organizational commitment, and job stress and satisfaction [see 8 for full review]. Interestingly, high self-monitors were found to have lower commitment in both romantic relationships [15; 46] and with their organizations [25]. Despite this lack of commitment, high self-monitors are still able to achieve higher levels of performance and advancement in organizations [8]. Because high self-monitors have a more heightened social sensitivity, it is likely that these individuals are able to leverage their social knowledge in ways that benefit them.

3.1. Other-Based Reciprocity

The notion of reciprocity has broad research interest ranging from social psychology to evolutionary economics [19]. Social exchange theory proposes that quality relationships develop through reciprocal exchange of resources [3; 17]. This principle is based on the well-known norm of reciprocity [17].

There is evidence that individuals differ in terms of the extent to which they subscribe to the norm of positive reciprocity [5]. This is known as *positive reciprocity belief*. Individuals who hold strong reciprocity beliefs consistently demonstrate reciprocal exchange behaviors. That is, individuals who hold strong positive reciprocity beliefs feel more obligated to reciprocate with their communication partners, such that they will repay a kindness done for them to a network connection. However, recall that we are interested in whether participants understand the extent to which *their network connections* subscribe to the norm of reciprocity. We term this understanding *other-based reciprocity*.

Other-based reciprocity is the understanding of the reciprocity beliefs that others’ hold in one’s network. Therefore, individuals who are high in other-based reciprocity have a strong understanding of the reciprocity beliefs of their network connections (e.g., Bob knows that Allen holds strong reciprocity beliefs but Drew does not, thus Bob knows that Allen will likely reciprocate a kindness whereas Drew may not).

We argue that high self-monitors, because they are attuned and sensitive to the environment [23; 24], will

be more aware of their network connections' reciprocity beliefs. The constant attention to their surroundings to try and understand what norms are being presented in a situation in order to adjust their self-presentation [50] will lead the self-monitor to an awareness of other-based reciprocity. Thus, we propose the following hypothesis:

Hypothesis 1: Self-monitoring will have a positive relationship with understanding of other-based reciprocity.

3.2. Social Capital

With the situational awareness gained from other-based reciprocity, we suggest that these individuals (i.e., high self-monitors) will have greater access to social capital. Adler and Kwon [1] suggested that social capital is best understood as "the good will that is engendered by the fabric of social relations . . . mobilized to facilitate action" (p.17). Coleman [6] and Kadushin [26] explain social capital as resources embedded in interpersonal relationships that develop during the pursuit of instrumental goals. Thus, the essence of social capital *today* is networked resources created, maintained, and realized by social relations occurring via mediated communication [51].

Lin's [31] definition of social capital is "investment in social relations by individuals through which they gain access to embedded resources to enhance expected returns of instrumental or expressive actions" (p. 39). Lin's definition is particularly useful because it elucidates the social nature of capital and is easily operationalized.

Different perspectives on social relationships and social resources lead to the explication of two related forms of social capital: *bonding* and *bridging*. Bonding capital is understood as embedded in internal, or closely connected social ties [1], and research shows that perceptions of bonding capital increases credibility assessments, garners consensus from others, and enhances emotional support [52]. Bonding capital can be particularly advantageous for collective endeavors [27; 35; 37]. For example, Coleman [6] focused on a student revolution in Korea to discuss the collective returns of bonding social capital within small clandestine groups. Gould [16] also illustrated the importance of neighborhood relations in exerting contagious motivation toward protest participation. Thus, bonding capital is related to group solidarity, which in turn should be related to enacted, mutual social support.

On the other hand, bridging capital is associated with diverse social ties [1] and is understood as linkage capital because it facilitates connections to otherwise

disparate social groups. The advantage of bridging capital lies in its ability to connect people to novel, non-redundant social resources. Information flow between groups providing instrumental resources may be limited in homogeneous networks exhibiting insulating properties opposed to heterogeneous networks where subgroups are connected by liaisons [18]. Accordingly, bridging social capital is understood as benefits stemming from network diversity. As such, we propose that meaningful strategic gains in access to social capital are limited to the bridging dimension.

Individuals who have an understanding of other-based reciprocity should report having networks exhibiting higher levels of bridging capital, opposed to those who do not self-monitor and have low other-based reciprocity understanding. Inherent in self-monitoring theory is that self-monitors gather information about their environment with the intention of using such knowledge in a manner that fulfills their goals. Consistent with this notion, we argue that high self-monitors will use their understanding of other-based reciprocity to gain access to social capital. Thus, we argue:

Hypothesis 2: Other-based reciprocity will have a positive relationship with bridging social capital.

3.4. Network Awareness

However, we acknowledge that other-based reciprocity alone may not be enough to procure high levels of bridging capital. Thus, we propose that another element of situational awareness must be present in order to achieve the highest levels of bridging capital. Network awareness assesses the extent to which individuals understand the structure of interpersonal relationships comprising their *online* social networks; that is, the degree to which participants know *who knows who* in their online social network.

We suggest this moderates the relationship between other-based reciprocity and bridging capital because awareness of the social structure of one's social network, coupled with understanding which individuals subscribe to reciprocity norms, results in *situational awareness*. Individuals who are able to acquire knowledge and understanding of their online network structure (e.g., high self-monitors) are better able to leverage their other-based reciprocity beliefs towards bridging capital. Thus, we present the following hypothesis:

Hypothesis 3: Network awareness moderates the positive relationship between other-based reciprocity and bridging capital such that those with greater

network awareness will develop the highest levels of bridging capital.

Consistent with our arguments above, we suggest that the full process is a moderated mediation. Other-based reciprocity is argued to mediate the relationship between self-monitoring and bridging capital, explaining how self-monitoring leads to social capital. Further, network awareness will moderate the back half of this mediated model, such that higher levels of network awareness coupled with high levels of other-based positive reciprocity will lead to the highest levels of bridging capital. Thus,

Hypothesis 4: Other-based reciprocity mediates the relationship between self-monitoring and bridging capital, and the relationship between other-based reciprocity and bridging is moderated by network awareness.

4. Methods

A total of 255 participants (59% female) completed an online survey administered at a large university in the northeast United States. They averaged 22.1 years of age ($SD = 1.82$) and were 49.8% Asain or Pacific Islander, 36.4% White, 3.7% mixed race, 1.9 % Hispanic, and 1.1% Black/African-American. Participants reported using social networking sites an average of 19.24 hours per week across an average of 6.73 days per week.

4.1. Measures

Unless otherwise noted all items were measured on 7-point Likert type scales.

Self-Monitoring was measured using the social sensitivity sub-scale ($\alpha = .88$) of the revised scale created by Lenox and Wolfe [28], comprised of 6 items. Sample items include “My powers of intuition are quite good when it comes to understanding others’ emotions and motives” and “I can usually tell when I’ve said something inappropriate by reading it in the listener’s eyes.”

Understanding of Other-Based Reciprocity. We adapted the 11 item measure of positive reciprocity [38] to capture understanding of other-based reciprocity. Items were reworded to reflect understanding the positive reciprocity relationships among the respondent’s network connection ($\alpha = .87$). Sample items are “I know when a friend will undergo personal costs to help someone who helped that person before,” and “I know when a friend will do a boring job in return for someone’s pervious help.”

The *network awareness* scale included 5 items, including “I know who knows who among my social network site friends,” “I know which of my social network site friends who are actually friends,” and “I know which of my social network friends do not like each other” ($\alpha = .86$).

Bridging Social Capital was measured with Willilam’s [52] 15 item scale. Sample items include “Interacting with people online/offline makes me want to try new things” and “Interacting with people online/offline makes me feel connected to the bigger picture” ($\alpha = .87$).

5. Results

5.1. Descriptive Statistics

Table 1 provides descriptive statistics and intercorrelations of the study variables. Sex is negatively correlated with other-based reciprocity ($r = -.13$, $p < .05$). As expected, self-monitoring is positively and significantly correlated with other-based reciprocity ($r = .38$, $p < .01$), network awareness ($r = .44$, $p < .01$), and bridging capital ($r = .48$, $p < .01$). Age and sex were also included in the model to control for these demographic variables.

Table 1. Descriptive statistics.

Variable	1	2	3	4	5	6
1. Age	22.13 (1.82)					
2. Gender ^a	-0.20**	1.62 (0.49)				
3. Other Reciprocity	0.03	-0.13* (.8)	4.84			
4. Self- Monitoring	-0.09	0.05	0.44* * (.95)	5.13		
5. Network Awareness	-0.06	0.01	0.45* * (.95)	0.38* * (.95)	4.8(1)	
6. Bridging Capital	-0.03	0.08	0.52* * (.96)	0.48* * (.96)	0.50** * (.96)	5.06

Note: ^a 1=Male, 2=Female; $N = 240-261$, * $p < .05$, ** $p < .01$

5.2. Measurement Model Results

The data in this study are cross-sectional in nature and thus we tested for issues related to common method variance (CMV). Harmon’s one factor test was conducted to test the level of variance attributed to the measurement method, rather than the relationships of interest. All items comprising the four study variables were entered into an exploratory factor analysis (EFA), using Promax rotation. Results from this analysis are reported in Table 2. Supporting the use of factor analysis, the KMO measure for sampling adequacy was .891. Scree test analysis yielded four distinct factors accounting for 50.38% of the total

variance. Factor loading patterns were consistent with the proposed constructs (see Table 2). These results suggest that no single general factor is apparent, providing support that the variance explained is not attributed to measurement method alone [39].

Because all the variables in the present study are latent in nature, we tested the measurement model by conducting a confirmatory factor analysis (CFA) to determine the variables' distinctness. The measurement model consisted of the items for all four variables, including self-monitoring, understanding of other-based reciprocity, network awareness, and bridging social capital. Results show that the four-factor model ($\chi^2 = 1691.6$, $df = 563$; GFI = .679; RMSEA = .09) provided better fit than the single factor model ($\chi^2 = 2416.9$, $df = 563$; GFI = .560; RMSEA = .12). To further test the measurement model, we assessed a three factor model in which the two most highly correlated variables (other-based reciprocity and bridging capital) were constrained to the same factor. Results indicated that the four-factor model fit the data better than the constrained three-factor model ($\chi^2 = 1927.7$, $df = 563$; GFI = .632; RMSEA = .11). Taken together, we found the four-factor model to be a better fit to the data than the two alternative models, providing support that the four measures used in this study are structurally independent [42].

5.3. Hypotheses Testing

In order to address the shortcomings acknowledged by researchers [e.g., 10; 33; 40] in using a piecemeal approach to testing moderated mediation, Hayes [20] developed Process, an SPSS macro that provides a conditional process analysis based in regression. This method employs bootstrapping, analyzes the conditional direct and indirect effects at different levels of the moderator (unlike piecemeal approaches), and tests the model in a single step. Thus, Process was used to test the proposed moderated mediation with a back-end moderator (that is, we argue that moderator impacts the relationship between the mediator and the dependent variable).

Results of the analyses are located in Table 3. Supporting Hypothesis 1, self-monitoring has a positive effect on other-based reciprocity ($b = .36$, $t = 7.27$, $p < .0001$). Interestingly, other-based reciprocity was not significantly, directly related to bridging capital ($b = -.28$, $t = -1.17$, $p = ns$), failing to support Hypothesis 2. However, the interaction between other-based reciprocity and network awareness is significantly related to bridging capital ($b = .14$, $t = 2.96$, $p < .01$), providing support for Hypothesis 3.

The direct effect ($b = .23$, $t = 4.01$, $p < .0001$) and indirect effects of self-monitoring on bridging capital

Table 2. Factor structure.

Scale Name	Component			
	1	2	3	4
<i>Other Reciprocity</i>				
1			0.50	
2			0.77	
3			0.83	
4			0.68	
5			0.68	
6			0.70	
7			0.70	
8			0.47	
9			0.51	
10			0.54	
11			0.32	
<i>Self-Monitoring</i>				
1		0.83		
2		0.94		
3		0.85		
4		0.70		
5		0.81		
6		0.65		
<i>Bridging Social Capital</i>				
1	0.67			
2	0.67			
3	0.63			
4	0.62	0.33		
5	0.89			
6	0.72			
7	0.55			
8	0.88			
9	0.72			
10	0.64			
11	0.57			
12				0.30
13	0.47			
14	0.44			
15	0.35			
<i>Network Awareness</i>				
1			0.81	
2			0.66	
3			0.73	
4			0.76	
5			0.61	
Eigenvalue	11.61	2.76	2.30	1.97
% Variance Explained	31.38	7.47	6.22	5.31

**Table 3. Regression Modeling
Conditional Indirect Effects.**

Predictor	B	SE	t	p
Mediator Model (Other-Based Reciprocity)				
Constant	2.50	0.75	3.34	0.00
Self Monitoring	0.36	0.05	7.27	0.00
Age	0.04	0.03	1.43	0.15
Gender ^b	-0.22	0.10	-2.19	0.03
Dependent Variable Model (Bridging Capital)				
Constant	3.69	1.32	2.79	0.00
Other-Based Reciprocity	-0.28	0.24	-1.17	0.24
Self Monitoring	0.23	0.06	4.02	0.00
Network Awareness	-0.48	0.23	-2.05	0.04
Other-Recip. X Ntwk. Awareness	0.14	0.05	2.96	0.00
Age	0.00	0.03	0.13	0.90
Gender	0.26	0.11	2.47	0.01
Network Awareness	Boot indirect effect	Boot SE	Lower CI ^c	Upper CI
Conditional Indirect Effect				
- 1 SD (3.82)	0.09	0.04	0.03	0.18
M (4.81)	0.14	0.04	0.08	0.23
+ 1 SD (5.81)	0.19	0.04	0.12	0.28

Note: N = 239; Unstandardized regression coefficients are reported; Bootstrap sample size = 5,000; ^aValues represent selected output provided by the Hayes (2013) macro; ^bGender, 1=Male, 2=Female; ^cCI= confidence interval

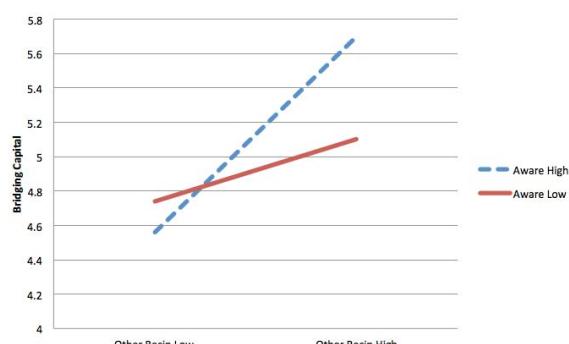


Figure 1. Moderation between network awareness, other-reciprocity, and bridging social capital.

through other-based reciprocity are significant at all three levels of the moderator. Specifically, as shown in Table 3, the conditional indirect effect of self-monitoring on bridging capital through other-based reciprocity is significant (regions of significance reported with confidence intervals) at low, medium, and high levels of network awareness. The mediated relationship occurs at all three levels of network awareness, though the effect gets stronger with increasing levels of networking awareness, supporting Hypothesis 4.

To further assess the form of the interaction, we graphed it at one standard deviation above and below the mean [2]. As depicted in Figure 1, those participants with high levels of network awareness coupled with a greater understanding of other-based reciprocity were significantly more likely to use their network for bridging purposes, opposed to those with low levels of network awareness.

6. Discussion

This study set out to explore a concept related to strategic, systematic social network awareness and development. We proposed that a series of variables including self-monitoring, other-based reciprocity, and online social network awareness interact in predictable ways to explain online bridging social capital. In the end, higher levels of online bridging capital are the consequence of *situational awareness*.

We began by detailing the nature of the relationship between self-monitoring and other-based reciprocity understanding. Recall that we adapted an existing scale measuring positive reciprocity beliefs to develop the other-based reciprocity understanding scale. This scale had strong internal reliability, and the results of the factor analyses show that it was internally consistent and structurally independent from the other measures used in this study. As expected, there was a significant positive relationship between self-monitoring and other-based reciprocity understanding. The combination of this trait and network knowledge is the foundation for accurate and comprehensive understanding of the nature and composition of one's social network. We expect these measures correlate with increased dedication of cognitive resources to the monitoring of individual's social spheres, although this is an area which needs to be further explored with future research.

We also identified a critically important interaction between variables that result in situational awareness. Situational awareness, as operationalized in this manuscript, is a function of the interaction between the understanding of other-based reciprocity norms and

online social network awareness. Recall that network awareness is a function of how well participants know *who knows who* in their online social network.

We argue that the combination of knowing specific and accurate details regarding the structure of social relationships, coupled with an understanding of how those network contacts subscribe to reciprocity norms, results in higher levels of reported bridging social capital online. Specifically, we consider individuals with this awareness to be situationally aware.

Consisted with our conceptualization of situational awareness, the interaction between other-based reciprocity beliefs and online social network awareness indicated that both these components are necessary to achieve higher levels of social capital. Of particular interest is the negligible difference between bridging capital scores for those high or low in network awareness when other-based reciprocity is low. These results provide support that online social network awareness is not useful in terms of bridging capital unless individuals understand the reciprocity norms held by those in their networks.

Results from the moderated mediation test provide further support for the situational awareness concept. Other-based reciprocity did not show a relationship with bringing social capital independent of network awareness, suggesting that it is the combination of both these constructs that leads to situational awareness. Furthermore, the test of moderated mediation demonstrates the role of self-monitoring in situational awareness.

Taken together, it may be that social network development is indeed better suited within a rational choice framework. Our results provide initial support that, for high self-monitors, social network development and maintenance is a product of strategic behavior. These findings have potential implications for the study of online social networking, shifting the focus towards rational and strategic models of online social networking, such as Lin's [29] theory of instrumental action.

7. References

- [1] Adler, P. S., & Kwon, S. (2002). Social capital: Prospects for a new concept. *The Academy of Management Review*, 27(1), 17–40.
- [2] Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications, Incorporated.
- [3] Blau, P.M. (1964). *Exchange and power in social life*. Transaction Publishers.

6.1. Limitations

The present study employed self-reported, cross-sectional data collected from a college student population, which could limit the generalizability of our results. Though we provide evidence that the cross-sectional design in the present study was unlikely to impact our results, future research should explore these relationships using different study designs, such as experiments and longitudinal paradigms, in a wider array of populations.

Further, in this study we examined perceptions of social capital (i.e., self-reported measure of bridging social capital), though the implications for situational awareness may be quite different for objective measures of social capital. Indeed, Stefanone et al. [48] found no relationship between perceptions of social capital and actual, enacted support. Future research should examine whether the findings in the present study hold with objective measures of social capital.

Lastly, some of the measures used in the present study have been adapted from their original versions so to best fit the current investigation. However, this may have an impact on the psychometric properties of those measures, from which they were originally validated. More research on the validity of the adapted and new scales used in this research is necessary.

6.2. Concluding Remarks

Our work provides an initial empirical exploration of situational awareness, demonstrating the potential implications this could have on the development and utilization of one's online social network. Our hope is that the results presented herein stimulate future research in the area of situational awareness, specifically focusing on theory development of the new concept, as well as empirical replication and validation of the proposed relationships.

- [4] Blau, P. M., and Duncan, O. D. (1967). *The American occupational structure*. New York:Wiley.
- [5] Clark , MS Mills , J. (1979). Interpersonal attraction in exchange and communal relationships. *Journal of Personality and Social Psychology*, 37, 12-24.
- [6] Coleman, J. S. (1986). Social theory, social research: A theory of action. *American Journal of Sociology*, 91, 1309–1335.
- [7] Coleman, J. C. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95–S120.

- [8] Day, D. V., Shleicher, D. J., Unckless, A. L., & Hiller, N. J. (2002). Self-monitoring personality at work: a meta-analytic investigation of construct validity. *Journal of Applied Psychology*, 87(2), 390.
- [9] DeBono, K. G., & Snyder, M. (1989). Understanding Consumer Decision-Making Processes: The Role of Form and Function In Product Evaluation1. *Journal of Applied Social Psychology*, 19(5), 416-424.
- [10] Edwards, J.R., & Lambert, L.S. (2007). Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis. *Psychological methods*, 12(1), 1.
- [11] Ferris, G.R., Perrewé, P.L., & Douglas, C. (2002). Social effectiveness in organizations: Construct validity and research directions. *Journal of Leadership & Organizational Studies*, 9(1), 49.
- [12] Frijda, N. H. (1986). *The emotions*. London: Cambridge University Press.
- [13] Gabrenya, W. K., & Arkin, R. M. (1980). Self-monitoring scale Factor structure and correlates. *Personality and Social Psychology Bulletin*, 6(1), 13-22.
- [14] Gangestad, S. W., & Snyder, M. (2000). Self-monitoring: appraisal and reappraisal. *Psychological bulletin*, 126(4), 530.
- [15] Glick, W. H. (1985). Conceptualizing and measuring organizational and psychological climate: Pitfalls in multilevel research. *Academy of Management review*, 601-616.
- [16] Gould, R. V. (1991). Multiple networks and mobilization in the Paris Commune, 1871. *American Sociological Review*, 716-729.
- [17] Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, (25)2, 161-178
- [18] Granovetter, M. (1973) 'The strength of weak ties', *American Journal of Sociology*, vol. 78, no. 6, pp. 1360–1379.
- [19] Gurvin, M. (2006) 'The evolution of contingent cooperation', *Current Anthropology*, vol. 14, no. 1, pp. 185–192.
- [20] Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach: Guilford Press.
- [21] Hogue, M., Levashina, J., & Hang, H. (2012). Will I Fake It? The Interplay of Gender, Machiavellianism, and Self-monitoring on Strategies for Honesty in Job Interviews. *Journal of Business Ethics*, 1-13.
- [22] Homans, G. C. (1950). *The human group*. New York: Harcourt, Brace & World.
- [23] Ickes, W., & Barnes, R. D. (1977). The role of sex and self-monitoring in unstructured dyadic interactions. *Journal of Personality and Social Psychology*, 35(5), 315.
- [24] Ickes, W., Reidhead, S., & Patterson, M. (1986). Machiavellianism and self-monitoring: As different as "me" and "you". *Social Cognition*, 4(1), 58-74.
- [25] Jenkins, J M. (1993). Self-monitoring and turnover: The impact of personality on intent to leave. *Journal of Organizational Behavior*, 14(1), 83-91.
- [26] Kadushin, C. (2004). Too much investment in social capital? *Social Networks*, 26, 75–90.
- [27] Klandermans, B. (1984). Mobilization and participation: Social-psychological expansions of resource mobilization. *American Sociological Review*, 49, 583–660.
- [28] Lennox, R. D., & Wolfe, R. N. (1984). Revision of the Self-Monitoring Scale. *Journal of Personality and Social Psychology*, 46(6), 1349-1364.
- [29] Lin, N., (1982). Social resources and instrumental action. In Marsden, P.V., Lin, N. (Eds.), *Social structure and network analysis*. Beverly Hills: Sage, pp. 131–145.
- [30] Lin, N., & Dumin, M. (1986). Access to occupations through social ties. *Social Networks*, 8, 365–385.
- [31] Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology*, 25, 467–487.
- [32] Lippa, R. (1976). Expressive control and the leakage of dispositional introversion-extraversion during role-played teaching1. *Journal of Personality*, 44(4), 541-559.
- [33] MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological methods*, 7(1), 83.
- [34] Marlowe, Herbert A. (1986). Social intelligence: Evidence for multidimensionality and construct independence. *Journal of educational psychology*, 78(1), 52.
- [35] McAdam, D., & Paulsen, R. (1993). Specifying the relationship between social ties and activism. *American Journal of Sociology*, 99, 640–667.
- [36] Monge, P. R., & Contractor, N. S. (2003). *Theories of communication networks*. New York: Oxford University Press.

- [37] Opp, K. D., & Gern, C. (1989). Dissident groups, personal networks, and spontaneous cooperation: The East German revolution of 1989. *American Sociological Review*, 58, 659–680.
- [38] Perugini, M., Gallucci, M., Presaghi, F., & Ercolani, A. P. (2003). The personal norm of reciprocity. *European Journal of Personality*, 17(4), 251-283.
- [39] Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879-903.
- [40] Preacher, K.J., Rucker, D.D., & Hayes, A.F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185-227.
- [41] Rui, J., & Stefanone, M.A. (2013). Strategic self-presentation online: A cross-cultural study. *Computers in Human Behavior*, 29, 110-118.
- [42] Schumacker, RE, & Lomax, RG. (1996). A beginner's guide to structural equation modeling. Lawrence Erlbaum. *Mahwah, NJ*.
- [43] Snyder, M. (1974). Self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30(4), 526.
- [44] Snyder, M, Gangestad, S, & Simpson, J. A. (1983). Choosing friends as activity partners: The role of self-monitoring. *Journal of Personality and Social Psychology*, 45(5), 1061.
- [45] Snyder, M. & Monson, T. C. (1975). Persons, situations, and the control of social behavior. *Journal of Personality and Social Psychology*, 32(4), 637.
- [46] Snyder, M., & Simpson, J. A. (1984). Self-monitoring and dating relationships. *Journal of Personality and Social Psychology*, 47(6), 1281.
- [47] Stefanone, M. A., Hurley, C. M., & Yang, Z J. (2013). Antecedents of online information seeking. *Information, Communication & Society*, 16(1), 61-81.
- [48] Stefanone, M. A., Kwon, H., and Lackaff, D. (2012). Exploring the relationship between perceptions of social capital and enacted support online. *Journal of Computer-Mediated Communication*, 17, 451-466.
- [49] Thorndike, E L. (1920). Intelligence and its uses. *Harper's magazine*, 140, 227-235.
- [50] Turnley, W. H. & Bolino, M. C. (2001). Achieving desired images while avoiding undesired images: Exploring the role of self-monitoring in impression management. *Journal of Applied Psychology*, 86(2), 351-360.
- [51] Wellman, B., & Frank, (2001). Network capital in a multi-level world: Getting support from personal communities. In N. Lin, K. Cook, & R. Burt (Eds.), *Social capital: Theory and research* (pp. 233–273). Hawthorne, NY: Aldine de Gruyter.
- [52] Williams, D. (2006). On and off the net: Scales for social capital in an online era. *Journal of Computer Mediated Communication*, 11(2), article 11.