BUILDING SOCIAL CAPITAL.
How the news and the strength of the ties in the political discussion foster reciprocity

CONSTRUYENDO CAPITAL SOCIAL: cómo las noticias y la fuerza de los vínculos en la discusión política fomentan la reciprocidad

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ABSTRACT

Reciprocity, a social principle that emerges in non-negotiated, inter-personal exchange, is arguably a key construct in generating social capital. However, little research has made this empirical connection. Building on an Orientation-Stimulus-Reasoning-Orientation-Response model, this study advances a theoretical and empirical model in which news use and political discussion tie strength contributes to the development of reciprocity and social capital. Drawing on two-wave panel data, results suggest that reciprocity is a strong predictor of social capital. News media use also directly predicts reciprocity, as well as political discussion with both strong and weak ties, and social capital. Additionally, discussion with weak ties and reciprocity mediate the relationship between news use and social capital.

RESUMEN

La reciprocidad, un principio social que emerge en los intercambios no negociados entre personas, es posible-mente un constructo clave en la generación de capital social. Sin embargo, pocos estudios han abordado de manera empírica esta conexión. Sobre la base de un modelo Orientación-Estímulo-Razonamiento-Orientación-Respuesta, esta investigación presenta una propuesta teórica y empírica en la que la exposición a noticias y la fuerza de los vínculos en la discusión política contribuyen al desarrollo de la reciprocidad y del capital social. Tras el análisis de los datos de un estudio de panel realizado en dos olas, los resultados sugieren que la reciprocidad es un fuerte predictor del capital social. Además, la exposi-ción a noticias de los medios de comunicación se relacio-na de manera directa con la reciprocidad; con la discusión política, tanto con vínculos fuertes como débiles; y con el capital social. Por otro lado, la discusión con vínculos dé-biles y la reciprocidad funcionan como mediadores de la relación entre exposición a noticias y capital social.

INTRODUCTION

People's knowledge about their larger social environment is to some extent mass mediated. During the last few decades, people have also become more dependent on the media to obtain information about politics and society (Strömbäck 2008). The information people gather from the news media provides the "raw material" for discussion about political and social issues (Mondak 2010:94), and these discussions enable groups to construct socially shared meanings, as well as a sense of themselves as a collective (e.g., Gil de Zúñiga and Valenzuela 2010; 2011; Shah, McLeod, and Yoon 2001; Sotirovic and McLeod 2001). In Gerbner's words, humans live in "a world erected by the stories they tell" (1998:175). These stories—communicated by the media and interpersonally—are a source for community norms because they transmit standards of behavior that are more likely to be implemented within social groups (Bandura 2001; Rimal and Real 2005). Thus, the news media is thought to influence the social resources individuals draw upon to solve common problems and achieve goals.

Although several scholars note the role of the news media in building social capital (Putnam 2000), and promoting political discussion (McLeod et al. 1999), less is known about the underlying mechanisms of these processes. One novel approach argues that reciprocity, or the extent to which individuals engage in behaviors of exchange for the mutual benefit of individuals or groups, is the foundation for building trust, maintaining social networks, and developing productive relationships between the press and the public (Ammann 2011; Beaudoin 2011; Emerson 1976; Lewis, Holton and Coddington 2014; Molm, Collett, and Schaefer 2007). This study builds on the reciprocity literature by exploring its role as an antecedent of social capital. Using the O-S-R-O-R (Orientation-Stimulus-Reasoning-Orientation-Response) framework, we propose that reciprocity is a key variable in explaining the cognitive and social processes that underlie individual media effects.

The following includes a brief introduction to the O-S-R-O-R approach to media effects. In particular, we answer the call made by Cho et al. (2009) for further research to explore subsequent orientations (the second 'O'), which has traditionally included variables such as political knowledge and political efficacy (McLeod et al. 1999; Jung, Kim, and Gil de Zúñiga 2011). According to the social cognitive theory of mass communication, the media's symbolic environment can 'implant' ideas and new behaviors either directly or through socially mediated processes (Bandura 2001:286). These social influences include the interpersonal discussion of matters of collective interest that have been prompted by the media. Based on these accounts, we posit that news media use can cultivate the sense of reciprocity and, ulti-mately, increase the level of social capital, through two pathways: a direct pathway of media influence, and a mediated pathway via political discussion traits—a proxy for the socially mediated influences. The model helps explain how attitudes toward social exchange, in combination with news use and discussion tie strength, are essential for establishing social connectedness, promoting collective action, and achieving common objectives.

DEVELOPING AN O-S-R-O-R MODEL OF MEDIA EFFECTS

Recent research has led communication scholars away from the traditional stimulus-response models (S-R)—direct and universal effects—and toward increasingly complex models that account for an individual's personal characteristics and various situational contexts (e.g. Cho et al. 2009; Jung et al. 2011; McLeod et al. 2001). Thus, drawing from advances on behavioral psychology, the basic S-R model has evolved towards the O-S-O-R (Orientation-Stimulus-Orientations-Response) approach (Markus and Zajonc 1985). Within this indirect media effects paradigm, the *communication mediation model* and the *cognitive mediation model* highlight the importance of mediating mechanisms—"what is likely to happen between the reception of the message and the subsequent response"—to explain the relationship between media stimuli and behavioral outcomes (McLeod, Kosicki, and McLeod 1994:146-147). For example, media attention, cognitive elaboration, and interpersonal discussion mediate the relationship between media exposure and political participation or learning (Eveland 2001; McLeod et al. 2001; Sotirovic and McLeod 2001). The O-S-O-R model proposes a two-step chain of influence from media stimulus to behavioral responses.

Later work suggests that the cognitive and interpersonal processes that take place between media exposure and behavioral outcomes follow a more complex sequence. Therefore, the theoretical model was further expanded to include 'reasoning' ('R') between message reception ('S') and subsequent orientations (second 'O') (Cho et al., 2009; Shah et al., 2007), resulting in a more nuanced O-S-R-O-R model. Shah et al. (2007) proposed a two-step chain of causation from prior orientations to subsequent orientations via media exposure (stimulus) and "citizen communication" (including both interactive civic messaging and political discussion). Similarly, Cho et al. (2009) suggested a mediating role of intrapersonal reflection (reasoning) on the relationship between campaign exposure/news use (stimuli) and orientations and behaviors. This first 'R' includes reflection on media content, anticipation of conversation and composition of ideas. "Reasoning" can also refer to collective considerations, including interpersonal political discussion or online political messaging (Cho et al. 2009; Jung et al. 2011).

Demographic and social orientations

Background dispositions, demographic orientations, values, and social-psychological needs are the starting points for explaining media effects in the O-S-R-O-R framework (Cho et al. 2009; Sotirovic and McLeod 2001). Cho et al. (2009) define social orientations as age, gender, race, income, education, religiosity, ideology, and residential stability. Similarly, Jung et al. (2011) considered variables such as age, gender, income and education as initial orientations. In general, those of higher income and education tend to benefit more from media use, have larger networks, and most importantly, tend to possess higher levels of social capital because they are exposed to more diverse networks through school and work, have more financial resources to participate in politics, and also have the cognitive ability to learn from the news (Delli Carpini and Keeter 1996; Putnam 2000). Therefore, a very rigorous model of media effects should consider a wide range of initial orientations, including: demographics, social orientations, and discussion network size.

News media use (Stimulus) and discussion (Reasoning)

Citizens learn about their social world by entering the environment constructed by the media (Schoemaker and Reese 2014). Partly because of the development of the internet and online news media, people have become increasingly dependent on the media to obtain information about politics (Strömbäck 2008). The information people gather from the media thus constitutes the "raw material that fuels political discussion" (Mondak, 2010:94), which is in-itself a method for reasoning and reflecting on politics and public issues (Moy and Gastil, 2006). It therefore stands to reason that those who use news more often will also discuss issues and topics they come across with others in their discussion networks, and this idea is supported by empirical research (Cho et al. 2009; Gil de Zúñiga and Valenzuela 2011; McLeod et al. 1999; Moy and Gastil 2006).

Research has also explored specific attributes of political discussion networks that are relevant in explaining different political outcomes (Hively and Eveland 2009; Shah, Kwak, and Holbert 2001). One of these attributes is the strength of the relationship between discussion partners, often called a 'tie.' The strength of a tie is a "combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie" (Granovetter 1983:1361). A strong tie is therefore characterized by a greater sense of "intimacy, trust, respect, access, and mutual regard" (Huckfeldt and Sprague 1991:125). Weak ties, in contrast, may facilitate access to more diverse and non-redundant information, as they usually come from socially and culturally heterogeneous backgrounds (e.g. La Due Lake and Huckfeldt 1998; Wellman 1997). From a theoretical point of view, it is reasonable to expect that the information obtained through the news media will spur conversations about public affairs with different individuals in ones' discussion networks, in both weak (acquaintances, neighbours, etc.) or strong ties (partner, family, etc.). Some previous studies, although scarce, have found this direct relationship between news exposure and frequency of political discussion, with both strong and weak ties (Gil de Zúñiga and Valenzuela 2011). Based on these previous findings and theoretical considerations, we hypothesize that:

H1: News media use (stimulus, 'S') (W[1]) is an antecedent of political discussion (W[1]) (reasoning device, first 'R').

H1a: News media use is an antecedent of political discussion with strong ties.

H1b: News media use is an antecedent of political discussion with weak ties.

News media use (Stimulus), reciprocity, and social capital (subsequent Orientations)

News media use might also be directly related to attitudes of reciprocity. According to the social cognitive theory, media messages influence people's normative beliefs through observational learning (Bandura 2001). Similarly, the cultivation theory asserts that the media influence an individual's perceptions about the prevalence of issues and behaviors portrayed in the media. Accordingly, media exposure plays a significant role in the internalization of normative information (Gerbner 1998). In short, the media act as "teachers of values, ideologies, and beliefs" (Gamson et al. 1992:374). In the current study, we explore reciprocity as a multi-dimensional construct that includes "folk beliefs" and "moral precepts" (Gouldner 1960), cultivated through media use and political conversation.

Reciprocity, or non-negotiated exchanges, occurs through understanding one's community problems, as well as the direct development of mutual connections with people who belong to the same community. The cultivation of attitudes of reciprocity, in addition, requires a resilient individual identification with the group/s one belongs to. In doing so, community members will perceive that their own interests and those of the social group/s are intertwined. It seems highly unlikely that an individual who does not feel connected to the community, or at least to some social group, will develop attitudes of reciprocity. We suggest that news exposure does lead to increased understanding of community problems and to a greater sense of being connected to others. In addition, news media depiction of preferred normative behaviors—reciprocal exchanges—influence individuals' tendency to engage in reciprocal exchanges.

More specifically, perceptions and practices of reciprocity have been shown to have a positive effect on both news production and news creation (Holton et al. 2015). According to Holton and colleagues, when citizens use and/or create news they engage in a reciprocal relationship with journalists, as people expect their interest and attention to be reciprocated "with quality, worthwhile content" (2539). Other studies are suggestive of a mutual influence, or a causal loop between news and reciprocity. For example, local media use for news (television and newspapers) has been found to predict increased psychological attachment to the community and the development of interpersonal networks (McLeod et al. 1996). In the same line, Beaudoin (2011) found that offline and traditional media exposure to news (newspapers, cable TV, and network TV) predicts non-negotiated exchanges between neighbors (bonding and bridging neighborliness, in the author's parlance). The use of internet for getting news, however, was not an antecedent of reciprocity in this study. If reciprocity is a positive attitude that predicts behaviors of non-negotiated exchange, we suggest that reciprocity between individuals is one of the underlying mechanisms for community integration. Based on this theoretical approach and empirical findings, the following hypothesis is proposed:

H2: Media use for news ('S') (W^1) will be positively associated with reciprocity (second 'O') (W^1).

The role of the mass media in helping or hindering the development of social capital has been widely debated. Since Putnam (1995; 2000) blamed television for the steady decline in civic participation and social capital, communication scholars have taken an increased interest in the factors that might explain how individuals participate in political and civic life. Building on the uses and gratifications theory (Katz and Gurevitch 1974), subsequent research on the links between media use and social capital suggests that what really matters is the way in which individuals use media, and not the media itself. Thus, informative uses of the media have been generally found to have a positive effect on social capital, while media use for entertainment or escapism erode it (Beaudoin 2011; Gil de Zúñiga et al. 2012; Prior 2007; Shah 1998). A positive relationship between media use for news and social capital has been recurrently found for television (Shah 1998), internet (Shah et al. 2001), social media, and traditional media (Gil de Zúñiga et al. 2012). Thus, we pose our third hypothesis:

H3: News media use ('S') (W^1) will be positively associated with social capital (W^2) (second 'R').

Discussion with strong versus weak ties (Reasoning devices), reciprocity, and social capital (subsequent Orientations)

Political discussion often exposes people to different views and facilitates collective reasoning (Cho et al. 2009). Conversation promotes the mental organization of ideas and the assessment of arguments (Benhabib 1996). To do so, previous knowledge must be connected with discussion topics and extrapolated to other situations from everyday life. In other words, an elaboration process takes place when one discusses politics and current events (Eveland 2004; Jung et al. 2011). In this way, a number of studies have included political discussion, together with cognitive elaboration, as a reasoning device (first 'R') in O-S-R-O-R models (e.g. Cho et al. 2009; Jung et al. 2011).

In addition, discussion ties play a role in communicating social norms and principles of behavior (Kincaid 2004). Normative information from strong (Baer, Stacy, and Larimer 1991) and weak ties (Cruz, Henningsen and Williams 2000; Latane and Darley 1968) has an impact on perceptions and behaviors related to those norms. Furthermore, when two or more individuals engage in a conversation about politics, it becomes more likely that they will exchange information, opinions, perceptions and ideas about social norms. In fact, reciprocal and mutual cooperation might be a feature in many discussions about politics, as it can be the basis for the resolution of many political and social problems[1]. Due to lack of previous empirical research in this area, and based on the potential differential effects of strong versus weak ties, we pose the following as research questions:

RQ1: How does political discussion (W^1) (first 'R') relate to reciprocity (W^1) (second 'O')?

RQ1a: How does political discussion with strong ties relate to reciprocity?

RQ1b: How does political discussion with weak ties relate to reciprocity?

In social science research, social capital has been defined as "resources embedded in one's social networks, resources that can be accessed or mobilized through ties in the network" (Lin 2008:51). Social capital builds on the relations among persons or corporate actors, and it enables the "achievement of certain ends that in its absence would not be possible" (Coleman 1988:98). For Putnam (1995), social capital is related to social connectedness and interpersonal trust. It is no surprise then that social capital is built through social interaction among individuals and communities. More specifically, those individuals and groups that are part of a network of discussion tend to generate resources that can be mobilized for collective action (La Due Lake & Huckfeldt 1998). Although this connection has been empirically shown in previous studies (e.g., Coleman 1990; La Due Lake and Huckfeldt 1998), the specific effect of political discussion with weak versus strong ties has yet to be explored in depth. Thus, we pose the second research question:

RQ2: How does political discussion (W^1) (first 'R') relates to social capital (W^1) (second 'O')?

RQ2a: How does political discussion with strong ties relate to social capital?

RQ2b: How does political discussion with weak ties relate to social capital?

Reciprocity and social capital (subsequent Orientations)

Exchange theories have examined, in detail, sets of rules that regulate transactions and exchanges between parties, mainly from economic, sociological, and psychological perspectives. In an exchange relationship, these rules constitute a "normative definition of the situation that forms among, or is adopted by the participants" (Emerson 1976:351). Among these exchange rules, researchers have considered two main categories: negotiated and reciprocal (Cropanzano and Mitchell 2005; Gouldner 1960; Molm et al. 1999). The presence or absence of negotiation distinguishes economic exchanges from social exchanges (Blau 1964). In negotiated transactions, the parties involved reach explicit and strict agreements about the trade terms; therefore, reciprocity is taken for granted (Cropanzano and Mitchell 2005; Molm 2010; Molm et al. 1999). Social exchanges, instead, are characterized by an absence of explicit negotiation. Actors initiate exchange with greater uncertainty and risk of not being reciprocated. The flow of exchanges is unilateral, as actors do not know "whether, when, or to what degree the other will reciprocate" (Molm et al. 1999:877).

Previous research has shown that the structure of the exchanges determines their impact on participants' attitudes and perceptions. Actors that engage in non-negotiated, reciprocal exchanges tend to feel more affection for their partners, perceive them as more trustworthy, and feel more committed to them (Molm 2010; Molm, Takahashi, and Peterson 2000). These perceptions are even more intense among those who engage in networks based on *indirect* reciprocity (that is, when exchanges are not directly reciprocated by recipients, but by third parties, different members of the network). This indirect pattern of exchange—also called generalized reciprocity—leads to stronger perceptions of trust and solidarity, even when members of the network do not have close personal relationships (Lévi-Strauss 1969; Molm 2010; Molm et al. 1999).

The current study relies on the reciprocity that emerges in non-negotiated, reciprocal exchanges. Exchanges that take place under these circumstances are more likely to produce the kinds of integrative bonds that foster social capital as we conceptualize it: "Resources embedded in one's social networks" (Lin, 2008:51) that can be mobilized for the common good, either at the economic or community level (Gil de Zúñiga et al. 2012). If a pattern of behavior based on a reciprocal exchange can help develop trust and solidarity, and create stronger integrative bonds, it seems also logical to expect a positive effect on social capital as we conceptualize it. More formally:

H4: Reciprocity (W^1) (second 'O') is an antecedent of social capital (W^2) (second 'O')

Social capital (subsequent Orientations)

Based on different theoretical approaches, previous studies have paid attention to different aspects of social capital. In some accounts, social capital comprises the type of connections and social resources that individuals can mobilize for private gains. For example, Bourdieu (2011), building on the Marxist tradition, understands social capital as the set of benefits that (potentially) flow from membership in a group or that stem from the position in a network of relationships. For Bourdieu, these benefits operate at the service of social reproduction, and interact with economic and cultural capital to explain the relative positions of individuals and classes in the social structure. Other approaches have, however, focused on resources that may be associated to the public good and civic or political participation (e.g., Kim, Schweitzer and Lim 2002; Molyneux, Vasudeva and Gil de Zúñiga 2015). Finally, more inclusive, multidimensional perspectives distinguish between: a) *network social capital*, or one-to-one contacts than can provide goods, services, or emotional support; b) *participatory capital*, understood as actual civic and political engagement; and c) *community commitment*, or sense of belonging and interconnectedness that facilitates collective action (Wellman, Quan-Haase, Witte and Hampton 2001). This study is more linked to democratic citizenship, and our conception of social capital is therefore closer to the *community* dimension of Wellman et al. (2001). We consider social capital as the citizens' motivations, attitudes, resources, and knowledge that make them more likely to engage in collective action in order to achieve common goals (Shah et al. 2001).

Previous hypotheses and research questions implicitly suggest a complex model of direct and indirect media effects, where news media use is the trigger for a set of reasoning processes and subsequent orientations that, in turn, will foster social capital[2]. Nevertheless, considering the amount of alternative paths involved in this model (news media use, discussion with weak ties or strong ties, reciprocity), we cannot predict which direct or indirect paths will be significant. Thus, we pose the third and last research question:

RQ3: How do media uses for news (W^1), political conversation attributes (W^1) and reciprocity relate to each other as a model for building social capital (W^2)?

METHODS

Sample

Data collected for this study come from a two-wave panel survey administered in the United States by the authors' research group. The media-polling group Nielsen was hired to collect the data through an opt-in panel comprised of 200,000 U.S. residents. The survey was conducted from December 2013 to March 2014 (first wave, December 2013-January 2014; second wave, February-March 2014). For Wave 1, Nielsen selected 5,000 adults, of which 1,813 provided valid information (34.6% response rate). In the second wave, 1,024 participants re-answered the questionnaire, for a retention rate of 57%. A web-based survey program (Qualtrics) was used for easier administration of the panel, including delivery and collection of questionnaires. In order to achieve generalizability and maximum representation of the target population (adults in the United States), Nielsen employs a stratified quota sample based on U.S. Census statistics for age, gender, education, and income (procedure commonly used in previous research; see, e.g., Bode et al. 2014; Iyengar and Hahn 2009). Overall, the final sample is quite similar to the target population—although it is slightly older, more educated, and has a lower proportion of Hispanics—and it is also comparable to other surveys utilizing sampling strategies such as the Pew (see more detailed demographic data in Appendix).

Dependent variables

Social capital. Building on previous operationalization of the concept (e.g., Gil de Zúñiga, Jung, and Valenzuela 2012; Kim, Schweitzer, and Lim 2002; Molyneux, Vasudevan and Gil de Zúñiga 2015), we created an index measuring different sub-dimensions of individuals' social capital. Six items were averaged on a single scale (10 points, 1 = never to 10 = all the time): People in my community "feel like family in the community," "share community values," "talk to each other about community problems," "feel connected to each other," "help each other when there is a problem," and "watch out for each other" (W[2] Cronbach's α = .96; *M* = 4.47; *SD* = 2.37).

Reciprocity. This variable measures beliefs and perceptions about the positive outcomes—for both individuals and communities—of engaging in a pattern of behavior based on non-negotiated exchanges (Gouldner 1960; Molm 2010; Molm, Peterson and Takahashi 1999). Building on previous measures of the construct (Holton, Coddington, Lewis et al., 2015; Perugini, Gallucci, Presaghi and Ercolani 2003), we asked respondents for their level of agreement with the following seven statements (10-point scale, 1 = strongly disagree to 10 = strongly agree): "To help

somebody is the best policy to be certain that s/he will help you in the future," "I do not behave badly with others so as to avoid them behaving badly with me," "I fear the reactions of a person I have previously treated badly," "If I work hard, I expect it will be repaid," "When I pay someone compliments, I expect that s/he in turn will reciprocate," "I avoid being impolite because I do not want others being impolite with me," "If I help people, I expect that they will thank me nicely" (W[1] Cronbach's α = .83; *M* = 5.23; *SD* = 1.85).

Political discussion with strong ties. To capture the respondents' frequency of political talk with people with whom they maintain close relationships, characterized by a greater degree of "intimacy, trust, respect, access, and mutual regard" (Huckfeldt and Sprague 1991:125, see also Ardèvol-Abreu, Diehl and Gil de Zúñiga 2017; Valenzuela, Kim and Gil de Zúñiga 2012), we asked them how often they talk about politics or public affairs with: "spouse or partner," "family and relatives," "friends," "neighbors you know well," and "co-workers you know well" (5 items averaged scale, W[1] Cronbach's α = .80; *M* = 4.09; *SD* = 2.12).

Political discussion with weak ties. This study also included 4 items aiming to capture the respondents' frequency of political talk with more diverse but at the same time less significant persons. Thus, respondents were asked how often they talk about politics or public affairs with: "Acquaintances," "strangers," "neighbors you don't know well," and "co-workers you don't know well" (4 items averaged scale, W[1] Cronbach's α = .85; *M* = 2.27; *SD* = 1.62).

Independent variables

News media use. This study included 7 items aiming to capture a stringent measurement regarding the frequency of use of a variety of media outlets for news. Respondents were asked how often they get news from "cable," and "local newspapers." They were also asked about the overall frequency of use of "newspapers," "television," and "radio" for news. Finally, 2 more items asked respondents how often they used social media "to stay informed about current events and public affairs," and "to get news about current events from mainstream media" (7 items averaged scale, W[1] Cronbach's α = .66; *M* = 4.82; *SD* = 1.74).

Control variables

Demographics. A variety of additional variables regarding demographics were included in the multivariate analysis to control for potential confounds. The respondent's *gender* (49.7% females), *age* (*M* = 52.71; *SD* = 14.77) and *race* (77.9% whites) were measured with single items. We also controlled for *education*, measured as the highest level of formal education completed (8-point scale, 1 = less than

high school to 8 = doctoral degree; *M* = 3.61; *Mdn* = some college); and *income*, measured as an ordinal variable with 8 categories referred to the total annual household income (1 = less than \$10,000 to 8 = 200,000 or more; *M* = 4.46; *Mdn* = \$50,000 to \$59,999).

Discussion network size. This variable measures the number of people respondents discuss with at a certain frequency. Respondents were asked in open-ended fashion to provide an estimate of the number of people they "talked to face-to-face or over the phone about politics or public affairs," and "talked to via the Internet, including e-mail, chat rooms and social networking sites about politics or public affairs" during the previous month. The numbers provided in the answer to both items were added into a single index. The resulting variable, as expected, was highly skewed (W^1 *M* = 4.36; *Mdn* = 1.00; *SD* = 16.89; skewness = 10.86), so it was transformed using the natural logarithm (W^1 *M* = .33; *Mdn* = .24; *SD* = .37; skewness = 1.32).

Trust in the media. To obtain a stringent measurement, respondents were asked about their level of trust in different types of media (Gil de Zúñiga, Diehl and Ardèvol-Abreu 2017): "Mainstream news media," "alternative news media," "social media sites," and "news aggregators (e.g. Google News, etc.)" (10 points Likert-type scale; 1 = do not trust to 10 = trust completely; W^1 Cronbach's α = .72; *M* = 4.28; *SD* = 1.72).

Internal political efficacy. An increased sense of political competence has been shown to affect a variety of political-related attitudes and behaviors (e.g., Gastil and Xenos 2010; Gil de Zúñiga, Weeks and Ardèvol-Abreu 2017; Quintelier and Deth 2014). To measure this construct, respondents were asked to rate their degree of agreement with the following questions: "I have a good understanding of the important political issues facing our country," and "I consider myself well qualified to participate in politics" (10 points Likert-type scale; 1 = strongly disagree to 10 = strongly agree; W^1 Spearman-Brown Coefficient = .87; *M* = 5.34; *SD* = 2.56).

Strength of partisanship. To measure respondent's strength of party identification, they were asked to rate their attitudes toward the major parties. We used an 11-point scale ranging from 1 = "strong Republican," through 6 = "independent," to 11 = "strong Democrat." This item was then folded into a 6-point scale where lower scores represent low party identification and higher scores indicate strong partisanship, whether supporting Republicans or Democrats (W^1, *M* = 2.10; *SD* = 1.88).

Statistical analyses

To test the hypothesized relationships and to answer the research questions proposed in this study, a series of hierarchical regression analyses were performed. First, two series of lagged ordinary least square regressions were conducted to assess the effect of our independent variable, news use, on political discussion (strong and weak ties). Analogous regressions were conducted to test the effect of both news media use and political discussion on reciprocity. Secondly, three more series of regressions aimed to assess the role of all previous variables on our main dependent variable, social capital, as well as to explore the possibility of political discussion and reciprocity behaving as mediating variables in a more complex theoretical model. All regression models included at least three blocks of control variables: "Demographics," "social orientations" and "news use." Finally we conducted a structural equation modeling (SEM) in order to test whether our variables of interest related to each other in a joint theoretical structure. Endogenous variables were residualized for this analysis. Analyses were conducted using SPSS version 21.0 and MPlus version 7.0.

RESULTS

H1 stated a positive relation between news media use (W^1) and political discussion (W^1), both with strong (H1a) and weak ties (H1b). To test this first set of hypotheses, we conducted a pair of ordinary least squares (OLS) regression models predicting conversation with strong ties and with weak ties (See Table 1). Consistent with our expectations, results indicate a strong and positive relationship between news media use and discussion with both strong (β = .207, *p* < .001) and weak ties (β = .179, *p* < .001). According to this, the more people use news media, the more they engage in political discussion with both close and loose personal ties. Of the control variables in the first model, income (β = .107, *p* < .001), political interest (β = .221, *p* < .001), and discussion network size (β = .358, *p* < .001) were positive predictors of discussion with strong ties, while age (β = -.061, *p* < .01) showed a negative relationship with the dependent variable. Those who have greater financial resources, who are more interested in politics, or with a larger discussion network tend to discuss more often with their closer circle of relatives, friends, and colleagues. Conversely, the older respondents are, the less motivated they seem to discuss with these closer ties. In the second model, internal political efficacy (β = .170, *p* < .001), trust in the media (β = .114, *p* < .001) and discussion network size (β = .340, *p* < .001) were positively associated to discussion with weak ties, while the relationship with age (β = -.129, *p* < .001) and income (β = -.083, *p* < .01) was negative. Those who feel more equipped to participate in politics, who trust in the mass media, or have a larger discussion network tend to discuss more often with more diverse, looser ties. Those with greater revenues or who are older, in contrast, seem to be less motivated to discuss with their weak ties.

Table 1.
Lagged regression models predicting political discussion (strong and weak ties).

	Pol. Discussion (Strong Ties)	Pol. Discussion (Weak Ties)
Block 1 – Demographics (W[1])		
Age	-.061*	-.129***
Gender (female)	.034	-.027
Race (White=1)	-.024	-.052
Income	.107***	-.083**
Education	.019	-.023
ΔR^2	7.6%	1.7%
Block 2 – Social Orientations (W[1])		
Strength of Partisanship	.028	-.004
Internal Political Efficacy	.062	.170***
Trust in the Media	.052	.114***
Political Interest	.221***	.004
Discussion Network Size	.358***	.340***
ΔR^2	35.1%	25.9%
Block 3 – News Use (W[1])		
News Media Use	.207***	.179***
ΔR^2	2.9%	2.2%
Total R^2	45.6%	29.8%

Note: N = 1,014; Cell entries are final-entry ordinary least squares (OLS) standardized Beta (β) coefficients.* $p < .05$; ** $p < .01$; *** $p < .001$.

The second hypothesis predicted that news media use would be positively associated with reciprocity. To test it, we constructed another pair of lagged panel regression models testing the effects of our control and key variables on reciprocity. As presented in Table 2 (Model 2), results show that news media use is the strongest predictor of reciprocity (β = .213, $p < .001$). The decrease in the Beta value of news media use in Model 2, compared to Model 1 (β = .222, $p < .001$) would suggest that there could be a mediation effect of political discussion, which will be further studied with the SEM test. Of the rest of variables in the model, trust in the media (β = .175, $p < .001$) behaved as a positive antecedent, while age (β = -.089, $p < .05$) was a negative predictor. Political discussion with loose ties is also positively related to reciprocity (RQ1b) (β = .091, $p < .05$), while political talk with strong ties shows no significant relationship (RQ1a).

H3 predicted that news media use would be positively associated with social capital. To test this hypothesis, as well as to answer the following research questions, we conducted a third set of lagged panel regression models. As can be seen in Table 3 (Model 3), and consistent with our expectations, news media use predicts social capital even in the most restrictive model (Model 3, β = .208, $p < .001$), which controls for demographics, social orientations, news use and political discussion, as well as reciprocity.

RQ2 asked how political conversation with both strong (RQ2a) and weak ties (RQ2b) (W[1]) contributes to social capital (W[2]). Also shown in Table 3, political discussion with weak ties predicts social capital even after including reciprocity in the regression (Model 3, β = .089, $p < .05$) (RQ2b). The diminution in the Beta value in Model 3 compared to Model 2 (β = .100, $p < .05$) might be suggestive of the mediation role of reciprocity in the relationship between weak ties and social capital. More interestingly, political conversation with strong ties has no significant effect on social capital (RQ2b), either before or after controlling for the effect of reciprocity.

H4 predicted a positive relationship between reciprocity and social capital. Consistent with our expectations, as Table 3 (Model 3) shows, reciprocity is positively associated to social capital (β = .118, $p < .001$), and explains 1.2% of the variance of the dependent variable, a far from negligible figure considering the number of controls included in the model. According to this, those who engage in reciprocal exchanges will develop resources in their social networks that enable them to act together to pursue shared objectives.

Table 2.
Lagged regression models predicting reciprocity (W^1).

	Reciprocity (Model 1)	Reciprocity (Model 2)
Block 1 – Demographics (W^1)		
Age	-.098**	-.089**
Gender (female)	.022	.025
Race (White=1)	.027	.030
Income	-.042	-.030
Education	.050	.053
ΔR²	0.7%	0.7%
Block 2 – Social Orientations (W^1)		
Strength of Partisanship	.043	.044
Internal Political Efficacy	.093*	.079
Trust in the Media	.184***	.175***
Political Interest	.049	.057
Discussion Network Size	-.009	-.028
ΔR²	12.2%	12.2%
Block 3 – News Use (W^1)		
News Media Use	.222***	.213***
ΔR²	3.3%	3.3%
Block 4 – Political Discussion (W^1)		
Political Discussion (strong ties)	--	-.034
Political Discussion (weak ties)	--	.091*
ΔR²	--	0.4%
Total R²	16.2%	16.7%

Note: N = 1,014; Cell entries are final-entry ordinary least squares (OLS) standardized Beta (β) coefficients.* $p < .05$; ** $p < .01$; *** $p <.001$.

In order to test how all our variables of interest are interrelated in a comprehensive model that takes into account direct and indirect effects at the same time (RQ3), we conducted a SEM test (bootstrapped 1,000 iterations; χ^2 = 0.586; df = 2; p = .444; RMSEA < .001; CFI = 1.000; TLI = 1.008; SRMR = .004). Social capital (R² = 8.5%), reciprocity (R² = 4.3%), discussion with strong (R² = 5.1%), and weak ties (R² = 3.0%) were considered as criterion variables. The model was constructed according the O-S-R-O-R approach, and non-significant paths were removed. The resulting model (See Figure 1) shows news media use is directly related to all dependent variables: conversation with strong ties (β = .23, p < .05 or better), conversation with weak ties (β = .17, p < .05 or better), reciprocity (β = .18, p < .05 or better), and social capital (β = .20, p < .05 or better). Discussion with strong ties does not predict either reciprocity or social capital, as these paths were deleted from the model as explained above. Conversation with weak ties effectively predicts both reciprocity (β = .07, p <

.05 or better) and social capital (β = .11, p < .05 or better). Also as in the lagged regression models, the SEM test shows that reciprocity has a moderately strong, positive effect on social capital (β = .12, p < .05 or better). More interestingly, and consistent with the rest of the results, significant indirect effects ripple through reciprocity and discussion with weak ties, but not through strong ties (See Table 4). According to these indirect effects, news media use predicts social capital through reciprocity (β = .031, p < .001), but also through discussion with weak ties (β = .027, p < .01).

Overall, our results highlight a strong relationship between reciprocity and social capital. This direct relationship persists even when all our key variables are taken collectively in a more complex model of direct and indirect effects. These results also stress the importance of political conversations with weak ties, because they strengthen feelings of reciprocity and social capital, while channeling the effect of news media use on community connectedness.

Table 3.
Lagged regression models predicting social capital (W²).

	Social Cap. (Model 1)	Social Cap. (Model 2)	Social Cap. (Model 3)
Block 1 – Demographics (W¹)			
Age	.081*	.098**	.109***
Gender (female)	.087**	.088**	.085**
Race (White=1)	.011	.017	.014
Income	.026	.028	.031
Education	.035	.036	.030
ΔR²	2.9%	2.9%	2.9%
Block 2 – Social Orientations (W¹)			
Strength of Partisanship	.040	.039	.034
Internal Political Efficacy	.152***	.131***	.122**
Trust in the Media	.187***	.172***	.151***
Political Interest	-.054	-.068	-.075
Discussion Network Size	.062	.005	.008
ΔR²	14.0%	14.0%	14.0%
Block 3 – News Use (W¹)			
News Media Use	.264***	.233***	.208***
ΔR²	4.7%	4.7%	4.7%
Block 4 – Political Discussion (W¹)			
Pol. Discussion (strong ties)	--	.063	.067
Pol. Discussion (weak ties)	--	.100*	.089*
ΔR²	--	1.3%	1.3%
Block 5 – Reciprocity (W¹)			
Reciprocity	--	--	.118***
ΔR²	--	--	1.2%
Total R²	21.6%	23.0%	24.1%

Note: N = 1,014; Cell entries are final-entry ordinary least squares (OLS) standardized Beta (β) coefficients.* $p < .05$; ** $p < .01$; *** $p < .001$.

Figure 1.
Structural equation model of news media use, political discussion (strong and weak ties), and reciprocity on internal efficacy.
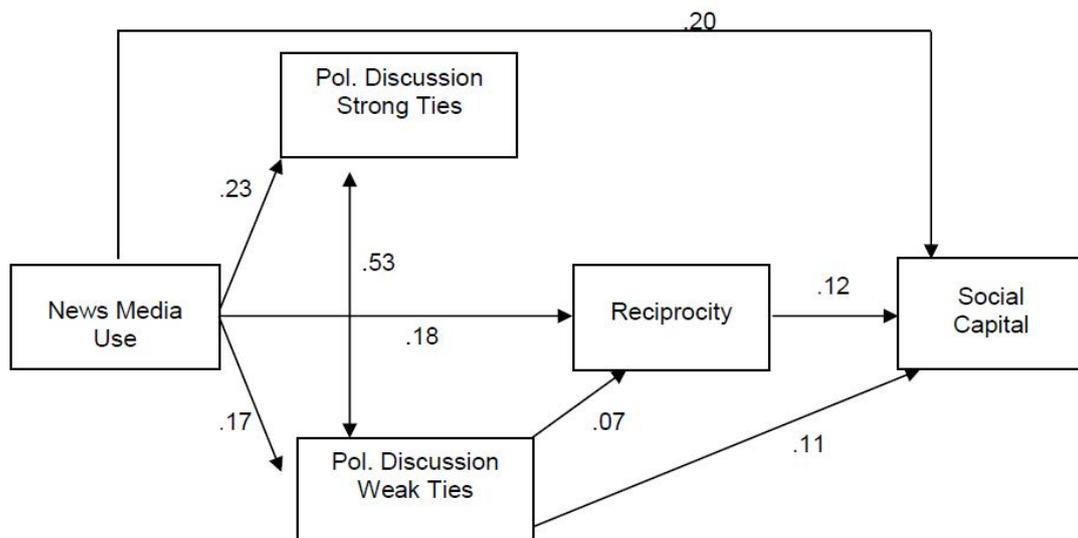
Note: N = 1,014. Continuous path entries are standardized structural equation modeling (SEM) coefficients (Betas) at $p < .05$ or better. The effects of demographic variables (age, gender, education, income, and race), social orientations (strength of partisanship, political internal efficacy, trust in the media, political interest) and discussion attributes (discussion network size) have been residualized in the model. To maximize statistical power, missing values on variables have been replaced with the mean. The model includes indirect effects of some variables on social capital: news media use through reciprocity; news media use through weak ties (represented in table 4). Model goodness of fit: χ² = 0.586; df = 1; p = .444; RMSEA < .001, CFI = 1.000, TLI = 1.008, SRMR = .004). Explained variance of criterion variables: Social Capital R² = 8.5%; Reciprocity R² = 4.3%; Strong Ties R² = 5.1%; Weak Ties R² = 3.0%. This theoretical model was also bootstrapped based on the Standard Errors with 1000 iterations.

Table 4.
Indirect effects of news media use (W^1) on social capital (W^2).

Indirect Effects	Point Estimate	Significance
News Media Use (W1) → Reciprocity (W^1) → Social capital (W^2)	0.031	$p < .001$
News Media Use (W^1) → Weak ties (W^1) → Social capital (W^2)	0.027	$p < .01$

Note: All coefficients are standardized (β).

DISCUSSION AND CONCLUSION

The role of reciprocity as an antecedent of social capital is a relatively new idea in social science research that has been theoretically suggested but not empirically tested. This study takes a first step in this direction. To that end, we have not only tested the relationship between reciprocity and social capital, but we have also included both variables in a communication mediation model that considers news media use as the source of political discussion, community reciprocity, and social capital. In addition, the present research answers the call made by Cho et al. (2009) for further research to explore "subsequent orientations" (the second 'O') in an O-S-R-O-R model, which have traditionally included variables such as political knowledge and political efficacy (McLeod et al 1999; Jung et al. 2011). In our study, we identify reciprocity and social capital as subsequent orientations in a model that accounts for the influence of previous orientations, news media use, and political discussion.

Building on the social cognitive theory of mass communication, our theoretical and empirical model includes a dual path of modeling influences of news media use on "human thought, affect, and action" (Bandura 2001:265). First, we found a direct, positive effect of news media use on both reciprocity and social capital. Second, we found a socially mediated mechanism to foster social capital: media use can indirectly build social capital via discussion with weak ties, but also via reciprocity. In this regard, both discussion with weak ties and reciprocity are proxies for the larger social influences outlined by social cognitive theory. Thus, the results suggest that, in spite of the changes in the media environment, news use remains a central element in ensuring the transmission of community norms, beliefs, and principles, as well as in establishing and reinforcing the social networks that may be associated with participation. In short, news media use is the starting point for processes of reasoning, attitude reflection, and orientation toward politics and community (i.e., political discussion, reciprocity, and social capital), which have traditionally been considered as indicators of a healthy democratic society.

Additionally, these findings raise some questions and problems for future research, as reciprocity had not been previously included in communication or cognitive mediation models. First, are there direct relationships between reciprocity and civic or political engagement? Second, in a more complex model of media effects (e.g., a complete O-S-R-O-R instead of the partial O-S-R-O model examined here), does social capital mediate the relationship between reciprocity and civic or political participation?

Unlike other studies that only consider discussion frequency and/or network size (e.g., Cho et al. 2009; Eveland 2001; Mutz 2002), we assess the effects of discussion with strong versus weak ties separately. It is interesting to note that the effect of news exposure on discussion is similar for both strong and weak ties. Thus, individuals who are exposed to information about politics and current events tend to share that information with family and close friends, but also with colleagues and people they do not know well. However, according to our results, these discussion processes do not have the same effects when performed with strong or weak ties. Our models shows that discussing with people one knows well has no significant direct or indirect effects on either reciprocity or social capital, while political talk with weak ties has both direct and indirect effects (via reciprocity) on social capital.

Naturally, there are a number of limitations to bear in mind when interpreting these results. First, our models do not control for some of the social and contextual factors that might have an impact on the tested relationships. To overcome this limitation, future research should employ a multilevel approach and examine the influence of additional predictors of reciprocity and social capital both at the micro and macro levels. These should include relevant structural anchoring variables (for example, individual length of residence or residential stability), and also country-level variables such as the degree of human development, democratic tradition, post-materialistic values, or type of media system, to name a few examples. Another limitation concerns the (relatively) short time lag between waves (three months). Under a cumulative effects paradigm, a longer time span between waves could have been more suitable to

detect larger causal effects of news media use and political discussion on our dependent variables (see, for example, Bucy and Holbert 2014). However, in every longitudinal design there is a trade-off between time lag and attrition rate: the longer the time span, the greater the response rate attrition, thereby reducing the representativeness and generalizability of the data. Even though we used a short-term timespan between waves, our study shows significant causal effects of news media use and discussion over reciprocity and social capital. This is consistent with our theoretical model, which makes us confident about the design of the study.

Despite these limitations, the present research makes theoretical and empirical advances with regard to the antecedents of social capital, showing alternative routes to the acquisition of social resources for collective action. In a nutshell, the article (a) clarifies the theoretical and empirical boundaries and relationships between reciprocity and social capital; (b) explores the complementary roles of news use and discussion network attributes in fostering both reciprocity and social capital; and (c) reaffirms the substantive importance of political discussions with weak ties, as they are mediators of media effects on a variety of pro-democratic attributes and behaviors. Based on these findings, future research can continue searching for additional reasoning devices and subsequent orientations that can help us better understand the routes towards a more cohesive society.

NOTES

1. See, for example, Goldstein and Freeman's (1990) concept of "strategic reciprocity" in world politics.

2. For similar models predicting social capital, see Gil de Zúñiga et al., 2012; Shah, 1998; Shah et al., 2001; Wellman et al., 2001.

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APPENDIX.
Demographic profile of study survey and other comparable surveys.

	Study Survey Wave I Dec. 2013– Jan. 2014	Study Survey Wave II March 2014	Pew Research Center Political Survey July 2013	U.S. Census American Community Survey 2012 (1-Year Estimates)
	(%)	(%)	(%)	(%)
Age:				
18-24	5.0	2.7	10.1	10.0
25-34	13.5	11.1	11.3	13.4
35-44	15.7	14.7	11.9	13.0
45-64	43.0	47.5	38.8	26.4
65 or more	22.8	24.1	28.6	13.7
Gender:				
Male	50.0	51.0	49.9	49.2
Female	50.0	49.0	50.1	50.8
Race / Ethnicity:				
White	76.2	79.1	72.2	73.9
Hispanic	7.5	5.2	11.2	16.9
African American	10.5	9.6	10.3	12.6
Asian	2.9	2.9	2.5	5.0
Education:				
High school or less	19.3	18.4	32.5	41.6
Some college	34.5	33.9	27.6	29.2
Bachelor's degree	30.5	31.9	22.6	18.2
Graduate degree	8.8	11.4	14.9	10.9
Household Income:				
Less than $49,999	46.0	44.3	45.9	51.9
$50,000 to $99,999	36.5	37.8	26.1	32.7
$100,000 or more	17.4	17.9	17.2	15.4

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