

Antecedents of internal political efficacy incidental news exposure online and the mediating role of political discussion

Politics

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Alberto Ardèvol-Abreu

Universidad de La Laguna, España

Trevor Diehl

University of Vienna, Austria

Homero Gil de Zúñiga

University of Vienna, Austria

Universidad Diego Portales, Chile

Abstract

Internal political efficacy has long been associated with news use and political discussion. Yet, as more people are inadvertently exposed to news and political discussion online, it remains unclear whether incidental news exposure also has a discursive effect on political efficacy. In a two-wave panel study, we applied the O-S-R-O-R model of communication effects to test these relationships. We found that political discussion with weak ties, but not strong ties, is a mediator between incidental news exposure and internal political efficacy.

Keywords

incidental news exposure, internal political efficacy, network tie strength, news media, political discussion

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Corresponding author:

Alberto Ardèvol-Abreu, Departamento de Ciencias de la Comunicación y Trabajo Social, Facultad de Ciencias Políticas, Sociales y de la Comunicación, Universidad de La Laguna, Av. César Manrique, Campus de Guajara, S/C de Tenerife 38071, España.

Email: aardevol@ull.es

Introduction

Scholars have long emphasized the important role political self-efficacy plays in stimulating political participation, civic engagement, and other behaviours related to democratic norms (e.g. Gastil and Xenos, 2010; Rosenstone and Hansen, 1993; Verba and Nie, 1972). The basic idea is that individuals are more likely to participate in the democratic process if they feel that they understand their political environment (internal efficacy), and that their actions can make a difference (external efficacy) (Bandura, 2002; Craig, 1979; Morrell, 2003). In spite of evidence for a strong influence of political efficacy on a variety of pro-democratic outcomes, only a few studies have explored its antecedents or predictors (Kenski and Stroud, 2006; Marx and Nguyen, 2016; Moeller et al., 2014). This is particularly the case for the *internal* dimension of political efficacy. In contrast, research suggests that *external* efficacy and political participation have reciprocal predictive relations; in other words, participatory behaviours are not only the outcome but also the antecedent of external efficacy (Finkel, 1985).

Previous research has called for further investigation into the behavioural antecedents of internal efficacy that, when compared to other forms of political engagement, require a higher ‘emotional or cognitive activation’ (Finkel, 1985: 907). The current study adds to this strand of literature by exploring individual demographic and political orientations that predict people’s perception of their ability to participate in political life. Next, the study seeks to advance the role of media use and discussion network effects in boosting internal political efficacy. In particular, the study proposes a model for how incidental and intentional news exposure, along with interpersonal reasoning mechanisms (political discussion with strong and weak ties), creates opportunities to learn about, and discuss, politics. These are salient research issues, given the ubiquity of media content from social media and online sources, and the numerous chances to simultaneously discuss politics online and offline.

Drawing on the framework of an O-S-R-O-R (Orientation-Stimulus-Reasoning-Orientation-Response) model of communication effects (Cho et al., 2009; Jung et al., 2011), political discussion is tested as a mediator of the relationship between news exposure and internal political self-efficacy. Using panel survey data, we find that a set of social orientations – strength of partisanship, political knowledge, discussion network size, and political interest – are all strong predictors of internal efficacy. This study also tests how incidental exposure to news might influence political discussion with strong and weak discussion network ties and, in turn, help explain a sense of political competence. Analyses reveal that both intentional news use and incidental exposure to news have only indirect effects on internal efficacy, through political discussion with weak ties, but not strong ties. These results not only extend our understanding of when and how people generate a sense of political efficacy but also the mechanisms for how news and discussion intertwine to foster internal efficacy.

Literature review

Developing the O-S-R-O-R model of media effects

Research on media effects, particularly with regard to campaign media exposure and participatory behaviours, has progressively abandoned the simple *stimulus–response* (S-R) models in favour of more articulated and complex ones, also called ‘indirect paradigms of media effects’ (Holbert and Stephenson, 2003). Rooted in behavioural psychology (Markus and Zajonc, 1985), the O-S-O-R model proposes a three-step model of

communication effects that flows: from *previous orientations* (O) to *media stimuli* (S), from media stimuli to *subsequent orientations* (O), and from subsequent orientations to a cognitive or behavioural *response* (R). This framework was introduced in political communication research as a useful tool for explaining certain mediating mechanisms of direct media effects. For example, media attention, interpersonal communication, and cognitive elaboration have all been used in this framework to explain the relationship between media exposure and behavioural or cognitive outcomes (Eveland, 2001; McLeod et al., 2001).

In the O-S-O-R framework, the first set of *orientations* (O) corresponds with ‘structural, cultural, and motivational characteristics of the audience’ (McLeod et al., 1994: 146) that influences the selection and overall impact of a message received from the media. The *stimulus* (S) usually refers to news consumption and exposure – though interpersonal communication is sometimes tested as a stimulus – as a mediator of ‘the effects of demographic, dispositional, and structural factors on cognitive and behavioral outcomes’ (Cho et al., 2009: 71). A second set of *orientations* (O) derives from media exposure, and represents ‘what is likely to happen between reception of the message and the response of the audience’ (McLeod et al., 1994: 147). In turn, a final *response* (R) refers to eventual outcome behaviours of media exposure, such as political participation or civic engagement (e.g. Cho et al., 2009), although some studies have explored cognitive outcomes as responses to media exposure (Eveland et al., 2003).

Authors concerned with understanding the complex relationships between mass media exposure, interpersonal communication, and the underlying cognitive processes of media effects have proposed an updated version of the O-S-O-R framework. This initial mediation model has recently been expanded in order to better account for various activities that result from media exposure, like conversations, reflection, and cognitive elaboration. These processes, some authors argue, are not truly ‘subsequent orientations’ stemming from direct media effects, but are instead reasoning processes taking place between some media *stimuli* (S) and subsequent outcome *orientations* (second O) (Cho et al., 2009; Jung et al., 2011; Shah et al., 2007). For this reason, Cho et al. (2009) proposed an O-S-R-O-R (Orientation-Stimulus-Reasoning-Orientation-Response) chain of causation. The addition of *reasoning* (R) to the model allows researchers to account for reflection on media content, and includes various forms of reasoning: anticipation of conversation, composition of ideas for expression, and cognitive elaboration. Reasoning can also refer to interpersonal forms of reasoning (e.g. political discussion).

In line with this literature, this study argues that demographics and political attributes (Orientations) will predict news consumption patterns and incidental news exposure (Stimulus). This media stimulus will have a further influence on social reasoning mechanisms: political discussion with both strong and weak ties (Reasoning). These ties, in turn, should influence people’s perceptions of how well equipped they are to partake in the political process (internal political self-efficacy, Outcome). This theoretical and empirical model also answers a call made by Cho et al. (2009) for further research regarding outcome orientations. Thus, we advance the O-S-R-O-R model of communication effects by introducing internal efficacy as an outcome orientation.

Demographic and social orientations (O)

Demographic variables have been found to explain most of the variance in political self-efficacy (Kenski and Stroud, 2006). This is because political self-efficacy is determined, at least in part, by an individual’s tendency to reflect on their experiences in order to

achieve goals, solve problems, or master a task (Bandura, 2002). In the political realm, reflection on political experiences depends on one's education, employment level, social status, or past experience with politics (Marx and Nguyen, 2016; Verba and Nie, 1972). This rationale is in line with a resource model of political participation, where certain individuals are better equipped to connect their political needs to certain goals or opportunities (e.g. Brady et al., 1995). For example, Kenski and Stroud found that, among demographic predictors of political efficacy, education and income showed a positive influence on both internal and external efficacy, while age was a negative predictor. Social and political orientations, strength of partisanship, political interest and political discussion with strong ties were also positively related to internal efficacy in that study. Another study suggests that unemployment also influences internal political efficacy (Marx and Nguyen, 2016). However, these studies either (1) relied on cross-sectional data analysis or (2) did not include several key social orientation variables, such as political knowledge, trust in the media, or discussion network size. Therefore, it is necessary to further explore the role of these social orientations, not only to assess their importance as predictors of internal efficacy, but also to control for potential confounds in more complex models. Thus, we pose the following research question:

RQ1. Which demographic and social orientation characteristics (O) (W^1) predict internal efficacy (W^2)?

News media use and incidental news exposure (Stimuli)

In the O-S-R-O-R framework, media use is a stimulus for direct effects on both political discussion and political self-efficacy. The following section first outlines the effects of media use on political discussion attributes. Previous research has generally shown that intentional media use for informational purposes predicts frequency of political discussion (Jung et al., 2011; Kim et al., 1999; Xenos and Moy, 2007). Some studies have explored in further detail the effects of news use on political discussion by distinguishing between discussion with so-called 'strong ties' and 'weak ties'. Close ties (people one knows well, like family or friends) are characterized by 'intimacy, trust, respect, access, and mutual regard' (Huckfeldt and Sprague, 1991: 125). Accordingly, strong ties are thought to influence political behaviours, like voting or protest, but have less of an impact on exposure to information diversity (Sinclair, 2012; Valenzuela et al., 2012). In contrast, weak ties (people one does not know well, like co-workers and acquaintances) are often composed of people from diverse social, cultural, and economic backgrounds. Exposure to this diversity gives individuals the opportunity to acquire more diverse, non-redundant information that could enhance learning and foster political participation (Lake and Huckfeldt, 1998). Along these lines, Gil de Zúñiga and Valenzuela (2011) found that the information people gather from the news media tends to spur conversations about public affairs with both strong and weak ties.

Although the habit of intentional news seeking may influence political conversation, the acquisition of information about politics and current events does not always occur intentionally, particularly in the online arena (Tewksbury et al., 2001). In the contemporary news environment, many individuals will be inadvertently exposed to news via search engines, social media, and the Internet (Kim et al., 2013). People can stumble onto news while they are doing other activities, despite not actively seeking for information (Tewksbury et al., 2001). Literature concerning the effects of unintentional exposure to

news online is scarce, and to the authors' best knowledge, no previous studies have explored whether the effects of this incidental form of consuming news is strong enough to foster political discussion. Considering these previous findings, but also the gap in the literature on the subject, we pose the following hypotheses and research questions:

H1. News media use (S) (W^1) predicts political discussion (W^2) with weak ties (H1a) (R) and strong ties (H1b) (R).

RQ2. What is the impact of incidental news exposure (W^1) on political discussion (W^2) with weak (RQ2a) (R) and strong ties (RQ2b) (R)?

This article also examines the direct relationship between news exposure (intentional and incidental) and internal political efficacy. Research in this field offers mixed results, but in general, informational uses of news media have been found to predict internal efficacy (Moeller et al., 2014; Pinkleton et al., 1998). At the disaggregated level, newspapers, political talk radio, television, and Internet use for news have all been associated, at varying degrees of magnitude, to internal efficacy (Jung et al., 2011; Kenski and Stroud, 2006; McLeod et al., 1999; Tewksbury et al., 2008). Based on these previous findings, the following hypothesis is given:

H2. News media use (S) (W^1) will be positively related to internal efficacy (W^2).

Studies on the political outcomes of incidental exposure to news have focused mainly on its impact on political knowledge and participation. Previous research partially supports the assumption that incidental exposure to news predicts political knowledge (Tewksbury et al., 2001; Zukin and Snyder, 1984), narrows the knowledge gap between entertainment-oriented and news-oriented Internet users, and enhances both offline and online political participation (Kim et al., 2013; Kobayashi and Inamasu, 2014). If incidental exposure to news has a positive effect on political knowledge, and helps generate the informational resources for people to mobilize and participate in politics, it seems likely that incidental exposure to news will also influence one's self-perception of their ability to understand political information, which is a key part of internal political efficacy. On the other hand, occasional and unintended information exposure simply may not be sufficient for people to change how they think about their ability to participate in politics. The following is posed as a research question:

RQ3. What is the effect of incidental exposure to news (S) (W^1) on internal political efficacy (W^2)?

Political discussion: Weak and strong ties (R, reasoning)

Political discussion is a central, normative pillar of liberal democratic systems. This is because discussion is a way for groups to make decisions based on interpersonal reasoning (Dryzek, 1994). Cho et al. (2009) explicitly mention political discussion as a form of social reasoning in their O-S-R-O-R model. Similarly, Jung et al. (2011) emphasize interpersonal political discussion and online political messaging as a form of reasoning (R) in response to media exposure. The model suggested by Jung and colleagues explored the effects of news media use (stimulus) on political participation, both online and offline (response). The authors did not find any direct effect of news use on participation.

However, the influence of media consumption on participation was mediated via interpersonal discussion/political messaging (reasoning) and political knowledge/internal efficacy (subsequent orientations).

Recent studies have also turned their attention to the effects of the strength of political discussion ties. Given that political discussions can take place among individuals with varying degrees of closeness, intimacy, or emotional intensity, it seems logical to question whether discussions with a 'close' or 'strong tie' will have the same effects as discussion with a 'loose' or 'weak tie'. Thus, previous research has confirmed the important role of the number of weak ties as a predictor of civic engagement (Son and Lin, 2008), and as a mediator of the relationship between discussion network size and participation (Gil de Zúñiga and Valenzuela, 2011). However, no previous studies have addressed the relationship between discussion tie strength and internal political efficacy. Considering this gap in the literature, we ask the fourth research question:

RQ4. How do political discussion network attributes of weak (RQ4a) and strong ties (RQ4b) (W^2) relate to internal efficacy (W^2)?

Internal political efficacy (second O, outcome orientation)

Early research on political efficacy conceived political efficacy as a one-dimensional construct, defined as 'the feeling that individual political action does have, or can have, an impact upon the political process, i.e., that it is worthwhile to perform one's civic duties' (Campbell et al., 1954: 187). Thereafter, political efficacy was decomposed into two different components, which scholars refer to as 'internal' and 'external' dimensions of political efficacy (Craig, 1979). Internal political self-efficacy corresponds to internal evaluations of personal characteristics and experiences that facilitate or impede an individual's response to their political environment (Bandura, 2002; Craig, 1979; Morrell, 2003). External efficacy refers to evaluations of the capacity, or incapacity, of the system itself to provide an appropriate response (Coleman and Davis, 1976). Since the current study explores personal characteristics and habits of news consumption and political discussion, internal efficacy is the outcome variable in all the models tested.

Implicit in the O-S-R-O-R framework of media effects, as proposed by the research questions and hypotheses, is the indirect relationship between news media use and internal efficacy. News media use often leads to political discussions (e.g. Kim et al., 1999), and political discussions foster internal efficacy (Kenski and Stroud, 2006). Thus, it seems reasonable to expect a mediating role of political discussion on the relationship between news use and internal efficacy. Individuals receive information about political affairs and current events from the news media. Naturally, and depending on individual orientations, this information should increase one's confidence in their ability to understand and participate in politics. Information received from the media helps motivate a person to maintain discussions about political issues or recent events, which in turn reinforces their self-perception of political competence (indirect effect). Nevertheless, considering the amount of alternative paths involved in this model, at this stage, we cannot predict which paths will be significant explanatory mechanisms of internal political efficacy. Thus, we are forced to ask our last research question:

RQ5. Is there a mediation effect of political discussion (either with weak or strong ties) (W^2) in the relationship between news use (either intentional or incidental) (W^1) and internal efficacy (W^2)?

Methods

Sample

This study relies on a custom online survey administered in the United States between December 2013 and March 2014. The media-polling group Nielsen recruited respondents from approximately 200,000 registered people. Selection of respondents was conducted according to a quota based on age, gender, education, and income, in order to match US Census estimates as closely as possible. This method minimizes the drawbacks of samples based on Internet users (see, for example, Bode et al., 2013; Garret et al., 2012). The survey was administered using the online survey tool Qualtrics, supplied by a university-wide subscription account.

The first wave of the survey was distributed between 15 December 2013 and 5 January 2014 to 5000 individuals, of which 1813 provided valid information. The response rate, computed using the American Association of Public Opinion Research (AAPOR) (2011) response rate calculator, was 34.6%, an acceptable percentage for Internet-based surveys (see Sax et al., 2003). The second wave was collected between 15 February and 5 March 2014. Valid information of 1024 cases was included, and the retention rate was 57%. These figures have been considered acceptable to maintain representation (Watson and Wooden, 2006). The sample is comparable to the US Census, and is equivalent to other surveys employing similar sampling procedures (e.g. Pew Research Center for the People and the Press, 2013).

Measures

This study used five key variables and an exhaustive set of control variables in order to minimize potential confounds. All of these controls have been shown in previous literature to have an impact in some of our endogenous variables, as explained below. For specific wording of the items, see Appendix 1.

Key variables. The operationalization of our main dependent variable, ‘internal efficacy’, was based on universally tested items (Morrell, 2003, 2005) (2-item averaged scale; W^2 , Spearman-Brown Coefficient = .87; $M = 5.34$, standard deviation (SD) = 2.56). Depending on the degree of closeness and intimacy of the relationship, we distinguished between ‘political discussion with weak ties’ (4-item averaged scale; W^2 , Cronbach’s $\alpha = .86$; $M = 2.19$; SD = 1.57) and ‘political discussion with strong ties’ (5-item averaged scale; W^2 , Cronbach’s $\alpha = .78$; $M = 4.00$; SD = 2.05). Building on previous measures of the construct (Gil de Zúñiga et al., 2016), the measure of ‘news media use’ was based on participants’ responses to nine questions about their frequency of intentional exposure to a variety of news media (W^1 , Cronbach’s $\alpha = .68$; $M = 3.71$; SD = 1.50). Conversely, ‘incidental news exposure’ measured the amount of unintentional exposure to news, mainly in the online arena (adapted from Kim et al., 2013; Tewksbury et al., 2001; 6-item averaged scale; W^1 , Cronbach’s $\alpha = .84$; $M = 3.56$; SD = 1.92).

Control variables. According to previous studies, party identification is connected to our main dependent variable, internal political efficacy (see, for example, Baumgartner and Morris, 2006; Kenski and Stroud, 2006). We therefore controlled for ‘strength of partisanship’ (W^1 , $M = 2.10$; SD = 1.88). For statistical analysis, non-responses were treated as missing values. Given that different types of social and institutional trust are related to political discussion (Mou et al., 2011) and to internal efficacy (Torney-Purta et al.,

2004), we used ‘trust in the media’ as a proxy for social trust (4-item averaged scale; W^1 , Cronbach’s $\alpha = .72$; $M = 4.28$; $SD = 1.72$). Political knowledge has been both theoretically and empirically linked to internal political efficacy (Balch, 1974; Prior, 2003). To measure respondent’s ‘political knowledge’, we created an index consisting of eight questions. Some of them assessed their level of awareness of current policy issues, while others quantified their degree of knowledge of the US political system and its institutional rules (see Delli Carpini and Keeter, 1993) (W^1 : Cronbach’s $\alpha = .75$; $M = 4.58$; $SD = 2.17$; W^2 : Cronbach’s $\alpha = .72$; $M = 4.23$; $SD = 2.07$). According to previous literature, the size of political discussion networks has an impact on the frequency of political discussion (Lee, 2012; Mutz, 2002) and on internal efficacy (Moy and Gastil, 2006). Our measure of ‘discussion network size’ was created using an additive index of two open-ended questions (adapted from Gil de Zúñiga et al., 2016). The resulting variable was highly skewed (W^1 , $M = 4.36$; median = 1.00; $SD = 16.89$; skewness = 10.86). To address this problem, the natural logarithm was used (W^1 , $M = 0.33$; median = 0.24; $SD = 0.37$; skewness = 1.32). An individual’s level of interest in politics is strongly connected to perceptions of political self-competence (Kenski and Stroud, 2006). Accordingly, this study controls for the effects of ‘political interest’ to isolate potential confounding effects (2-item averaged scale; W^1 , Spearman–Brown coefficient = .97; $M = 6.67$; $SD = 2.70$). Finally, all our regression-based models included five demographic variables that have been related to individual levels of internal efficacy (Hayes and Bean, 1993; Lee, 2006; Moeller et al., 2013; Vecchione and Caprara, 2009) or to the frequency of political discussion (Gil de Zúñiga and Valenzuela, 2011). Thus, we considered in our models the respondent’s *gender* (49.7% females), *age* ($M = 52.71$ years; $SD = 14.72$ years), and *race* (77.9% Whites). We also controlled for *education*, highest level of formal education completed ($M = 3.61$, median = some college), and household *income* ($M = 4.46$, median = US\$50,000–US\$59,999).

Statistical analyses

In order to test the hypotheses and research questions, and to examine the mediating role of political discussion in the relationship between news use, incidental exposure, and internal political efficacy, we employed a series of autoregressive analyses as well as structural equation modelling (SEM) test. Path analysis with SEM allows for the simultaneous accounting of direct and indirect effects in a single, comprehensive model (Geiser, 2010). As an additional advantage, this technique does not limit the number of mediating variables, so that we can compare the fit of different models, including the two discussion variables (strong and weak ties) that mediate the relationship between news exposure and internal efficacy (see Geiser, 2010; Muthén, 2002). To test the statistical significance of indirect effects, we used asymmetric confidence intervals based on bootstrapping methods (Geiser, 2010). Analyses were conducted using SPSS version 21.0 and Mplus version 7.0.

Results

The first goal of this article was to identify the antecedents of internal political efficacy. Second, employing the O-S-R-O-R framework, the study tests the direct and indirect effects of news media use, incidental news exposure, and political discussion with weak and strong ties on internal efficacy. Our first research question asked about the main predictors of internal efficacy, considering demographics and social orientations.

Table 1. Autoregressive regression models predicting internal efficacy.

| | Model 1 | Model 2 |
|---|---------|---------|
| Block 1 – demographics (W ¹) | | |
| Age | -.023 | -.019 |
| Gender (female) | -.020 | -.016 |
| Education | .005 | .013 |
| Income | .012 | .013 |
| Race (White = 1) | -.007 | -.002 |
| ΔR ² | 11.9% | 12.2% |
| Block 2 – social orientations (W ¹) | | |
| Partisanship | .058** | .060** |
| Trust in the media | -.020 | -.028 |
| Political knowledge | .062* | .066* |
| Discussion network size | .045 | .028 |
| Political interest | .129*** | .134*** |
| ΔR ² | 33.8% | 34.0% |
| Block 3 – news media use and incidental news exposure (W ¹) | | |
| News media use | .030 | .027 |
| Online incidental news exposure | -.007 | -.019 |
| ΔR ² | 0.1% | 0.2% |
| Block 4 – autoregressive term (W ¹) | | |
| Internal efficacy | .629*** | .605*** |
| ΔR ² | 19.1% | 18.1% |
| Block 5 – political discussion (W ¹) | | |
| Political discussion (strong ties) | – | .005 |
| Political discussion (weak ties) | – | .069* |
| ΔR ² | | 0.4% |
| Total R ² | 64.9% | 64.8% |

OLS: ordinary least squares.

N = 724. Cell entries are final-entry OLS standardized β coefficients.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).

Autoregressive models presented in Table 1 (Model 2) show that social orientations have a greater influence on internal efficacy than demographics: While the former accounts for 34.0% of the variance of internal efficacy, the latter only explains 12.2%. Among social orientations, strength of partisanship ($\beta = .060$, $p < .01$), political knowledge ($\beta = .066$, $p < .05$), and, most importantly, political interest ($\beta = .134$, $p < .001$) were positively associated to internal efficacy.

According to our second hypothesis, we expected news use to be directly, and positively, associated with internal efficacy. We did not find empirical support for H2. Autoregressive models in Table 1 show that the effect of news media use on internal efficacy is not statistically significant, either before (Model 1, $\beta = .030$, *n.s.*) or after controlling for political discussion (Model 2, $\beta = .027$, *n.s.*).¹ Similarly, RQ3 addressed the relationship between incidental exposure to news and internal political efficacy. Results (Table 1) show that incidental news exposure is not directly connected to self-perceptions of political competence, either in the first ($\beta = -.007$, *n.s.*) or in the second model ($\beta = -.019$, *n.s.*). However, these non-significant results do not exclude the possibility of a fully mediated effect of news use and incidental news exposure on internal efficacy through political discussion, which is tested below.

Table 2. Indirect effect of incidental news exposure (W^1) and news use (W^1) on internal efficacy (W^2).

| Indirect effects path | Point estimate | Two-tailed p -value |
|---|----------------|-----------------------|
| Incidental news exposure (W^1) → political discussion (weak ties) (W^2) → internal efficacy (W^2) | 0.013 (0.006) | $p < .05$ |
| News Use (W^1) → political discussion (weak ties) (W^2) → internal efficacy (W^2) | 0.014 (0.006) | $p < .05$ |

Standardized coefficients (standard error in parentheses).

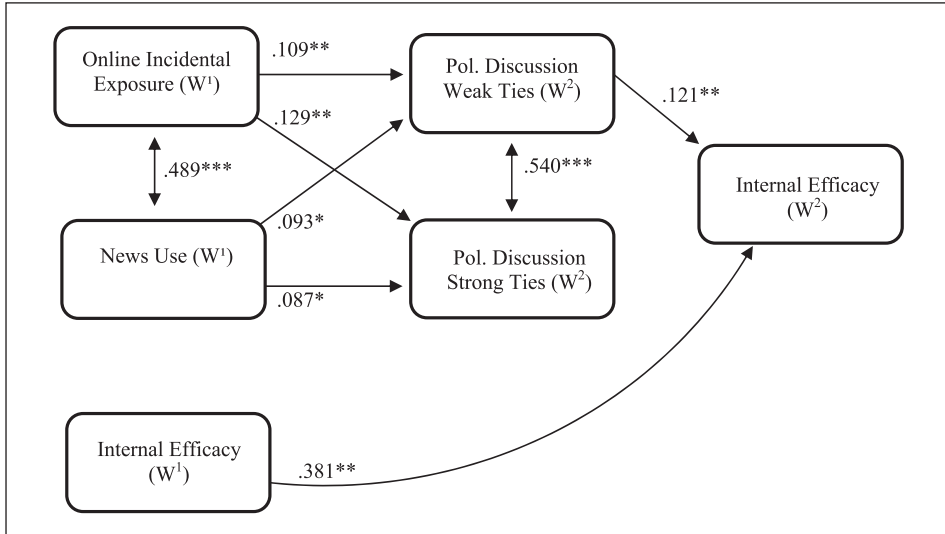


Figure 1. Autoregressive effects structural equation model of online incidental exposure, news use, and political discussion (strong and weak ties) on internal efficacy. Sample size = 798. Continuous path entries are standardized SEM coefficients (Betas). The effects of demographic variables (age, gender, education, income, and race) and sociopolitical antecedents (strength of partisanship, trust in the media, political knowledge, discussion network size, and political interest) have been residualized in all endogenous variables. The model includes indirect effects of online incidental exposure and news use on internal efficacy (represented in Table 2). Model goodness of fit: $\chi^2 = 8.90$; $df = 4$; $p = .06$; root mean square error of approximation (RMSEA) = .039, comparative fit index (CFI) = 0.990, Tucker–Lewis index (TLI) = 0.969, standardized root mean square residual (SRMR) = .02. Explained variance of criterion variables: Political Discussion (Strong Ties) $R^2 = .035$; Political Discussion (Weak Ties) $R^2 = .030$; and Internal Efficacy $R^2 = .163$. This model was bootstrapped based on the standard errors with 1000 iterations. * $p < .05$; ** $p < .01$; *** $p < .001$.

RQ4 asked about the effects of political discussion with weak (RQ4a) and strong ties (RQ4b) on internal efficacy. Autoregressive models show that discussing politics with weak ties (RQ4a) predicts higher levels of internal efficacy ($\beta = .069$, $p < .05$) (Table 1, Model 2). This positive effect was not observed for discussion with strong ties (RQ4a) ($\beta = .005$, *n.s.*).

In order to propose a comprehensive model, testing direct and indirect effects in a theoretical structure comprising news consumption, political discussion (with both strong and weak ties), and internal efficacy (RQ5), an SEM test was conducted (Figure 1) (bootstrapped 1000 iterations; $\chi^2 = 8.90$; $df = 4$; $p = .06$; root mean square error of approximation (RMSEA) = .039, comparative fit index (CFI) = 0.990, Tucker–Lewis index

(TLI) = 0.969, standardized root mean square residual (SRMR) = .02) with strong ties ($R^2 = .035$), weak ties ($R^2 = .030$), and internal efficacy ($R^2 = .163$) as criterion variables. The model controlled for the effect of internal efficacy in W^1 , as well as for demographics and social orientations, as explained in detail in Figure 1.

Our first hypothesis stated a positive relationship between news media use and political discussion with both weak (H1a) and strong ties (H1b). We confirmed both H1a and H1b. SEM coefficients in Figure 1 show that the effect of news media use on political discussion is direct and strong: Those scoring high in news media use reported higher frequency of political discussion with weak (H1a) ($\beta = .093$, $p < .05$) and strong ties (H1b) ($\beta = .087$, $p < .05$). Likewise, RQ2 addressed the effect of incidental news exposure on political discussion with both weak and strong ties. The SEM in Figure 1 shows that incidental exposure is positively associated to weak ties (RQ2a) ($\beta = .109$, $p < .01$) and strong ties (RQ2b) ($\beta = .129$, $p < .01$). Taken together, news consumption, whether intentional or incidental, seems to foster political discussion with both weak and strong ties.

The SEM also showed statistically significant indirect effects of news media stimuli on internal efficacy via discussion with weak ties (see indirect effects in Table 2). On the one hand, news media use is indirectly related to internal efficacy through weak ties ($b = .014$, $p < .05$). Similar results were found for incidental news exposure, which was shown to have an indirect effect on internal efficacy through weak ties ($b = .013$, $p < .05$). Results suggest that political discussion, specifically with those in more 'distant' relationships, is an important path to internal efficacy. Results also allow highlighting the importance of news consumption, whether intentional or incidental, as a trigger of political discussion.

Discussion

This study is part of a growing area of research concerned with the causes and precursors to internal political efficacy. Despite the significance of internal political efficacy in creating active, better informed citizens, few studies have explored the antecedents of internal efficacy in such an exhaustive and systematic manner. This study also makes it possible to ascertain the effects of different uses of news media – deliberate versus incidental exposure to news – on internal efficacy. In addition, we aimed to find out more about the direct and indirect influence of political discussion (with both weak and close ties) on internal efficacy. Last, the model proposed in this article provides additional empirical evidence of an O-S-R-O-R model of media effects, responding to previous calls for further exploration of political orientation outcomes (Cho et al., 2009; Jung et al., 2011).

Results show that both intentional news media use and incidental exposure have a fully mediated effect on internal efficacy. Political discussion with weak ties is the mediating variable that explains the effects of both types of news consumption patterns on internal political efficacy. Consistent with scores of studies, news media use predicts political discussion (Jung et al., 2011; Xenos and Moy, 2007). Interestingly, this positive effect on discussion was found not only for intentional but also for unintentional news exposure. The theoretical explanation for this seems to be simple: People access new information from traditional and online media and gain knowledge of current affairs, regardless of whether exposure was intentional or incidental. That is, individuals may learn about politics either way. This new information fosters political discussion about these issues, as people may seek to either exchange views, or just gain a better understanding on the topic.

Both patterns of media use (intentional and incidental) stimulate discussion with both weak and strong ties. Somewhat unexpectedly, indirect effects of news media stimuli on internal efficacy are fully mediated through discussion with weak discussion network

ties, but not strong ties. To our knowledge, this is the first study to objectively reveal this important path. One explanation we can offer for this is that interaction with weak ties may expose individuals to a greater number of arguments, views, and ideas, different from those that are usually provided by their habitual circle of relationships (Gil de Zúñiga and Valenzuela, 2011). This, in turn, may also lead to an increased self-perception of competence in understanding political issues and participating in the democratic process in general.

The findings of this study invite optimism, as they open new avenues to better understand the connection between news exposure, political discussion, and internal political efficacy. While it is true that traditional news media use has declined dramatically over the past decade, it is also a fact that the Internet and online media use has risen exponentially over the same period (Pew Research Center for the People and the Press, 2016), providing greater opportunity for incidental exposure to news, even for those who do not search for it. Our findings also reaffirm the substantive importance of political discussions with weak ties, as they positively predict internal efficacy. These results are in line with previous studies that underscore the beneficial effects of this type of discussion, which has been shown to be a stronger predictor of civic participation than political talk with strong ties (Gil de Zúñiga and Valenzuela, 2011).

There are, however, several limitations in the design of this research that are worth noting. First, our findings need to be interpreted in the context of a non-election-year news cycle. When compared to an election year, political issues receive less attention from the media during these periods. Although 2014 was a midterm election year, the election was not held until November 4, while the data collection finished in early March. Further research should validate the model in the context of a presidential election news cycle, when media effects might be stronger, more immediate, and perhaps direct instead of fully mediated via discussion. Another limitation concerns the relatively short time lag between waves (3 months). If we consider the influence of news use and discussion to be cumulative, a longer time frame between waves could have resulted in larger effects on our dependent variable. However, long time spans between survey waves often cause the response rate to fall dramatically (for a more detailed discussion, see Kessler and Greenberg, 1981), thereby lowering the quality of the data. Our analyses show significant causal effects of news use and discussion on efficacy, even when controlling for prior individual levels of internal efficacy (autoregressive models). Further research could, however, try to alter the time frames between waves to check whether the effects are maintained, increased, or reduced. Finally, although incidental exposure to news takes place mainly in the online arena (see Kim et al., 2013; Tewksbury et al., 2001), it is obvious that it can also happen via the traditional media. Future studies may include the traditional media in the models in order to assess potential differences.

Despite these limitations, this article reinforces previous findings on the potential value of incidental exposure to news media and political discussion, especially with weak ties, for developing more effective and participatory citizens. All in all, our findings contribute to the understanding of how news use fuels a cycle in which certain types of political discussions explain individual differences regarding self-perception of ability to participate in decision-making processes and, consequently, possibly contribute to the development of alternative ways to strengthen a healthier democracy.

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Note

1. To better establish causality, and to explore the possibility that the effect of news use on internal efficacy moves in both directions (i.e. a virtuous circle of influence between news use and internal efficacy), we tested alternative regression-based models in which the relationships between variables were reversed (from internal efficacy to news use, reverse to those shown in Tables 1 and 2 and Figure 1). Autoregressive ordinary least squares (OLS) models predicting news use in time showed that internal efficacy does not predict news use, both before ($\beta = .022, n.s.$) and after ($\beta = -.002, n.s.$) controlling for political discussion with strong and weak ties (models not reported). To explore possible mediating effects via discussion with either strong or weak ties, we also constructed an autoregressive structural equation modelling (SEM) of internal efficacy in W^1 predicting news use in W^2 . All model of fit indexes suggested a very poor fit of this reversed model to our data ($\chi^2 = 43.38; df = 3; p < .001$; root mean square error of approximation (RMSEA) = .139, comparative fit index (CFI) = 0.934, Tucker–Lewis index (TLI) = 0.802, standardized root mean square residual (SRMR) = .06), and none of the indirect effects reached statistical significance. This is also consistent with our theoretical O-S-R-O-R model: the effects run from intentional and incidental news use (Stimulus) to internal efficacy (Subsequent Orientation), but not the other way around.

References

- Balch GI (1974) Multiple indicators in survey research: The concept “sense of political efficacy.” *Political Methodology* 1(2): 1–43.
- Bandura A (2002) Social cognitive theory in cultural context. *Applied Psychology* 51(2): 269–290.
- Baumgartner J and Morris JS (2006) The Daily Show effect: Candidate evaluations, efficacy, and American youth. *American Politics Research* 34(3): 341–367.
- Bode L, Vraga EK, Borah P and Shah DV (2013) A new space for political behavior: Political social networking and its democratic consequences. *Journal of Computer-Mediated Communication* 19(3): 414–429.
- Brady HE, Verba S and Schlozman KL (1995) Beyond SES: A resource model of political participation. *American Political Science Review* 89(2): 271–294.
- Campbell A, Gurin G and Miller WE (1954) *The Voter Decides*. Evanston, IL: Row, Peterson and Company.
- Cho J, Shah DV, McLeod JM, McLeod DM, Scholl RM and Gotlieb MR (2009) Campaigns, reflection, and deliberation: Advancing an O-S-R-O-R model of communication effects. *Communication Theory* 19(1): 66–88.
- Coleman KM and Davis CL (1976) The structural context of politics and dimensions of regime performance: Their importance for the comparative study of political efficacy. *Comparative Political Studies* 9(2): 189–206.
- Craig SC (1979) Efficacy, trust, and political behavior: An attempt to resolve a lingering conceptual dilemma. *American Politics Research* 7(2): 225–239.
- Delli Carpini MX and Keeter S (1993) Measuring political knowledge: Putting first things first. *American Journal of Political Science* 37(4): 1179–1206.
- Dryzek J (1994) *Discursive Democracy: Politics, Policy, and Political Science*. New York: Cambridge University Press.
- Eveland WP Jr (2001) The cognitive mediation model of learning from the news: Evidence from non-election, off-year election, and presidential election contexts. *Communication Research* 28(5): 571–601.
- Eveland WP, Shah DV and Kwak N (2003) Assessing causality in the cognitive mediation model: A panel study of motivations, information processing, and learning during campaign 2000. *Communication Research* 30(4): 359–386.
- Finkel SE (1985) Reciprocal effects of participation and political efficacy: A panel analysis. *American Journal of Political Science* 29(4): 891–913.
- Garret K, Bimber B, Gil de Zúñiga H, Heinderyckx F, Kelly J and Smith M (2012) New ICTs and the study of political communication. *International Journal of Communication* 6(1): 214–231.
- Gastil J and Xenos M (2010) Of attitudes and engagement: Clarifying the reciprocal relationship between civic attitudes and political participation. *Journal of Communication* 60(2): 318–343.
- Geiser C (2010) *Data Analysis with Mplus*. New York; London: The Guilford Press.
- Gil de Zúñiga H and Valenzuela S (2011) The mediating path to a stronger citizenship: Online and offline networks, weak ties, and civic engagement. *Communication Research* 38(3): 397–421.
- Gil de Zúñiga H, Barnidge M and Scherman A (2016) Social media social capital, offline social capital, and citizenship: Exploring asymmetrical social capital effects. *Political Communication*. Epub ahead of print 26 October. DOI: 10.1080/10584609.2016.1227000.

- Gil de Zúñiga H, Valenzuela S and Weeks B (2016) Motivations for political discussion: Antecedents and consequences on civic participation. *Human Communication Research* 42(4): 533–552.
- Hayes BC and Bean CS (1993) Political efficacy: A comparative study of the United States, West Germany, Great Britain and Australia. *European Journal of Political Research* 23(3): 261–280.
- Holbert RL and Stephenson MT (2003) The importance of indirect effects in media effects research: Testing for mediation in structural equation modeling. *Journal of Broadcasting & Electronic Media* 47(4): 556–572.
- Huckfeldt R and Sprague J (1991) Discussant effects on vote choice: Intimacy, structure, and interdependence. *The Journal of Politics* 53(1): 122–158.
- Jung N, Kim Y and Gil de Zúñiga H (2011) The mediating role of knowledge and efficacy in the effects of communication on political participation. *Mass Communication & Society* 14(4): 407–430.
- Kenski K and Stroud NJ (2006) Connections between internet use and political efficacy, knowledge, and participation. *Journal of Broadcasting & Electronic Media* 50(2): 173–192.
- Kessler RC and Greenberg DF (1981) *Linear Panel Analysis: Models of Quantitative Change*. New York, NY: Academic Press.
- Kim J, Wyatt RO and Katz E (1999) News, talk, opinion, participation: The part played by conversation in deliberative democracy. *Political Communication* 16(4): 361–385.
- Kim Y, Chen HT and Gil de Zúñiga H (2013) Stumbling upon news on the internet: Effects of incidental news exposure and relative entertainment use on political engagement. *Computers in Human Behavior* 29(6): 2607–2614.
- Kobayashi T and Inamasu K (2014) The knowledge leveling effect of portal sites. *Communication Research* 42(4): 482–502.
- Lake R and Huckfeldt R (1998) Social networks, social capital, and political participation. *Political Psychology* 19(3): 567–584.
- Lee H (2012) Communication mediation model of late-night comedy: The mediating role of structural features of interpersonal talk between comedy viewing and political participation. *Mass Communication and Society* 15(5): 647–671.
- Lee KM (2006) Effects of Internet use on college students' political efficacy. *CyberPsychology & Behavior* 9(4): 415–422.
- McLeod JM, Kosicki GM and McLeod DM (1994) The expanding boundaries of political communication effects. In: Bryant J and Zillman D (eds) *Media Effects, Advances in Theory and Research*. Hillsdale, NJ: Lawrence Erlbaum, pp.123–162.
- McLeod JM, Scheufele DA and Moy P (1999) Community, communication, and participation: The role of mass media and interpersonal discussion in local political participation. *Political Communication* 16(3): 315–336.
- McLeod JM, Zubric J, Keum H, Deshpande S, Cho J, Stein S, et al. (2001) Reflecting and connecting: Testing a communication mediation model of civic participation. *Paper presented to the AEJMC annual meeting, Washington, DC, 5–8 August*.
- Markus H and Zajonc RB (1985) The cognitive perspective in social psychology. In: Lindzey G and Aronson E (eds) *Handbook of Social Psychology*. New York: Random House, pp.137–230.
- Marx P and Nguyen C (2016) Are the unemployed less politically involved? A comparative study of internal political efficacy. *European Sociological Review*. Epub ahead of print 16 May. DOI: 10.1093/esr/jcw020.
- Moeller J, de Vreese C, Esser F and Kunz R (2014) Pathway to political participation: The influence of online and offline news media on internal efficacy and turnout of first-time voters. *American Behavioral Scientist* 58(5): 689–700.
- Morrell ME (2003) Survey and experimental evidence for a reliable and valid measure of internal political efficacy. *Public Opinion Quarterly* 67(4): 589–602.
- Morrell ME (2005) Deliberation, democratic decision-making and internal political efficacy. *Political Behavior* 27(1): 49–69.
- Mou Y, Atkin D and Fu H (2011) Predicting political discussion in a censored virtual environment. *Political Communication* 28(3): 341–356.
- Moy P and Gastil J (2006) Predicting deliberative conversation: The impact of discussion networks, media use, and political cognitions. *Political Communication* 23(4): 443–460.
- Muthén BO (2002) Beyond SEM: General latent variable modeling. *Behaviormetrika* 2(9): 81–117.
- Mutz D (2002) The consequences of cross-cutting networks for political participation. *American Journal of Political Science* 46(4): 838–855.
- Pew Research Center for the People and the Press (2013) July 2013 political survey methodology [online]. Available at: <http://www.people-press.org>
- Pew Research Center for the People and the Press (2016) The modern news consumer: New attitudes and practices in the digital era [online]. Available at: <http://www.journalism.org/2016/07/07/the-modern-news-consumer>

- Pinkleton BE, Austin EW and Fortman KJ (1998) Relationships of media use and political disaffection to political efficacy and voting behavior. *Journal of Broadcasting & Electronic Media* 42(1): 34–49.
- Prior M (2003) Any good news in soft news? The impact of soft news preference on political knowledge. *Political Communication* 20(2): 149–171.
- Rosenstone SJ and Hansen JM (1993) *Mobilization, Participation, and Democracy in America*. New York: Macmillan Publishing Company.
- Sax LJ, Gilmartin SK and Bryant AN (2003) Assessing response rates and nonresponse bias in web and paper surveys. *Research in Higher Education* 44(4): 409–432.
- Shah DV, Cho J, Nah S, Gotlieb MR, Hwang H, Lee N-J, et al. (2007) Campaign ads, online messaging, and participation: Extending the communication mediation model. *Journal of Communication* 57(4): 676–703.
- Sinclair B (2012) *The Social Citizen: Peer Networks and Political Behavior*. Chicago, IL: University of Chicago Press.
- Son J and Lin N (2008) Social capital and civic action: A network-based approach. *Social Science Research* 37(1): 330–349.
- Tewksbury D, Hals ML and Bibart A (2008) The efficacy of news browsing: The relationship of news consumption style to social and political efficacy. *Journalism & Mass Communication Quarterly* 85(2): 257–272.
- Tewksbury D, Weaver AJ and Maddex BD (2001) Accidentally informed: Incidental news exposure on the world wide web. *Journalism & Mass Communication Quarterly* 78(3): 533–554.
- The American Association for Public Opinion Research (2011) *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*, 7th edn. Oakbrook Terrace, IL: AAPOR.
- Torney-Purta J, Barber CH and Richardson WK (2004) Trust in government-related institutions and political engagement among adolescents in six countries. *Acta Politica* 39(4): 380–406.
- Vecchione M and Caprara GV (2009) Personality determinants of political participation: The contribution of traits and self-efficacy beliefs. *Personality and Individual Differences* 46(4): 487–492.
- Valenzuela S, Kim Y and Gil de Zúñiga H (2012) Social networks that matter: Exploring the role of political discussion for online political participation. *International Journal of Public Opinion Research* 24(2): 163–184.
- Verba S and Nie NH (1972) *Participation in America*. New York: Harper & Row.
- Watson N and Wooden M (2006) Modeling longitudinal survey response: The experience of the HILDA survey. *Paper presented at the ACPRI social science methodology conference*, Sydney, NSW, Australia. Available at: <https://old.acspri.org.au/conference2006/proceedings/streams/Modelling%20Longitudinal%20Survey%20Response.pdf>
- Xenos M and Moy P (2007) Direct and differential effects of the internet on political and civic engagement. *Journal of Communication* 57(4): 704–718.
- Zukin C and Snyder R (1984) Passive learning: When the media environment is the message. *Public Opinion Quarterly* 48(3): 629–638.

Author biographies

Alberto Ardévol-Abreu (PhD, Universidad de La Laguna, 2013) is an assistant professor at the Universidad de La Laguna (Spain), where he is also part of the ‘Laboratorio de Tecnologías de la Información y Nuevos Análisis de Comunicación Social’ (LATINA) research group. His major research interests focus on political communication, political participation, and new media. He is also interested in media representation of immigration and ethnic minorities and its effects on public opinion.

Trevor Diehl is a research assistant and doctoral student at the Media Innovation Lab (MiLab) in the Department of Communication (University of Vienna). He completed his undergraduate studies at the University of Nevada, Reno, and earned an MA from the University of Texas at Austin’s School of Journalism. He previously worked as a research assistant at the Annette Strauss Institute for Civic Life, where he studied the nature of civic participation in Texas. His research interests include digital media and journalism practice, political effects of social media use, and the impact of technology on the public’s understanding of science.

Homero Gil de Zúñiga, PhD, is Doctor in Political Science at the Universidad Europea de Madrid and also pursued a PhD in Mass Communication with a minor in Digital Media from the University of Wisconsin–Madison. Currently, he holds the Medienwandel Professorship at University of Vienna, Austria, where he leads the Media Innovation Lab (MiLab). In general, his research addresses the influence of new technologies and digital media over people’s daily lives, as well as the effect of such use on the overall democratic process.

Appendix I

Questionnaire

Internal political efficacy index: Questions 1 and 2

How much do you agree or disagree with the following statements about public life?

(from 1 = 'strongly disagree' to 10 = 'strongly agree')

1. I have a good understanding of the important political issues facing our country
2. I consider myself well qualified to participate in politics

Political discussion (weak ties) index: Questions 3–6

Political discussion (strong ties) index: Questions 7–11

How often do you talk about politics or public affairs online and offline with ... (from 1 = 'never' to 10 = 'all the time')

3. Acquaintances?
4. Strangers?
5. Neighbours you don't know well?
6. Co-workers you don't know well?
7. Spouse or partner?
8. Family and relatives?
9. Friends?
10. Neighbours you know well?
11. Co-workers you know well?

News media use index: Questions 12–20

People get news from various sources. To answer the questions, please use a scale from 1 to 10, where 1 = 'never' and 10 = 'all the time'. How often do you get news from the following media sources?

12. Print
13. National newspapers
14. Local newspapers
15. Radio
16. Cable news
17. Online news sites
18. Citizen journalism sites
19. Facebook
20. Twitter

Incidental news exposure index: Questions 21–26

Sometimes people encounter or come across news and information on current events, public issues, or politics when they may have been using media for a purpose other than to get the news. How often does that happen to you with the following media? (from 1 = 'never' to 10 = 'all the time')

21. Online portals (e.g. MSN and Yahoo!)
22. Search engines
23. Blogs

Appendix I. (Continued)

- 24. Email
- 25. Social networking sites
- 26. Microblogging sites (e.g. Twitter)

Strength of partisanship (folded): Question 27

27. Where would you place yourself on a scale of 1–10 (where 1 = Strong Republican, 6 = Independent, and 10 = Strong liberal)?

Trust in the media index: Questions 28–31

The following questions are about how much you trust news from various sources. How much would you say you trust ... (from 1 = 'do not trust at all' to 10 = 'trust completely')

- 28. News from mainstream news media (e.g. newspapers, TV)?
- 29. News from alternative news media (e.g. blogs, citizen journalism)?
- 30. News from social media sites?
- 31. News from news aggregators?

Political knowledge additive index: Questions 32–39

Here are some questions to which not everyone may know the answers. If there are some you don't know the answer to, just select 'Don't know' and move on to the next one. Please do not discuss these questions with others or look them up on the web.

- 32. What job or political office does Joe Biden currently hold? (open-ended)
- 33. What job or political office does John Roberts currently hold? (open-ended)
- 34. For how many years is a US Senator elected – that is, how many years are there in one full term of office for a US Senator?
 - a) 2
 - b) 4
 - c) 6
 - d) 8
 - e) Don't know
- 35. On which of the following does the US Federal Government currently spend the least?
 - a) **Foreign aid**
 - b) Medicare
 - c) National defence
 - d) Social security
 - e) Don't know
- 36. Do you happen to know whether the immigration bill before Congress was introduced by
 - a) A group of Republican Senators
 - b) A group of Democratic Senators
 - c) **A mix of Republican and Democratic Senators**
 - d) Don't know
- 37. Do you happen to know what the ruling of the Supreme Court about Obamacare was?
 - a) **Individual mandate is constitutional, 5-4 vote**
 - b) Individual mandate is unconstitutional, 5-4 vote
 - c) Individual mandate is constitutional, unanimous decision
 - d) Individual mandate is unconstitutional, unanimous decision
 - e) Don't know

(Continued)

Appendix I. (Continued)

38. Which organization's documents were released by Edward Snowden?

- a) **FBI** b) **NSA** c) IRS d) CIA e. Don't know

39. Recently, the United Nations (UN) and United States were in negotiations with the Syrian government over the removal of:

- a) **Chemical weapons** b) Nuclear weapons c) Illicit drugs d) Al Qaeda operatives e) Don't know

Discussion network size: Questions 40 and 41

40. **During the past month, about how many total people have you talked to face-to-face or over the phone about politics or public affairs (i.e. NOT via the Internet)?** (open-ended)
41. **Still thinking about the people that you have talked to about politics or public affairs during the past month, about how many total people would you say you have talked to via the Internet, including email, chat rooms, social networking sites and microblogging sites?** (open-ended)

Political interest index: Questions 42 and 43

42. **How interested are you in information about what's going on in politics and public affairs?** (from 1 = 'not at all' to 10 = 'a great deal')
43. **How closely do you pay attention to information about what's going on in politics and public affairs?** (from 1 = 'not at all' to 10 = 'a great deal')

Socio-demographics: Questions 44–48

44. **What is your gender?**

- a) Female
b) Male

45. **What was your age on your most recent birthday?** (open-ended)

46. **What is your race or ethnicity?**

- a) Black or African American
b) White or Caucasian
c) Hispanic or Latino
d) Asian or Asian American
e) Native American
f) Other

47. **What is the highest level of education you have completed?**

- a) Less than high school
b) High school
c) Some college
d) Bachelors degree
e) Some graduate education
f) Professional certificate

Appendix I. (Continued)

- g) Masters degree
- h) Doctoral degree

48. Last year, what was your family's total household income, before taxes?

- a) Less than US\$10,000
 - b) US\$10,000–US\$14,999
 - c) US\$15,000–US\$24,999
 - d) US\$25,000–US\$49,999
 - e) US\$50,000–US\$99,999
 - f) US\$100,000–US\$149,999
 - g) US\$150,000–US\$199,999
 - h) US\$200,000 or more
-