

Televised Presidential Debates and Learning in the 2012 Korean Presidential Election: Does Political Knowledge Condition Information Acquisition?

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This study examines the effects of watching TV debates on voters' learning. Analyzing panel survey data conducted in the 2012 South Korean presidential election, we test whether voters learn about candidates through viewing presidential debates. In particular, this study finds that the information effects of watching TV debates are differential across individuals depending on their levels of political knowledge. The findings of this study show that viewing TV debates positively affects learning in general. Individuals are more likely to assimilate information through viewing televised debates if they watch TV debates more often and pay more attention to televised debates. Furthermore, this study reveals that the learning effects are heterogeneous across individuals according to their political knowledge. Citizens who are politically less knowledgeable, for instance, tend to learn more about candidates' campaign proposals through viewing televised debates.

Keywords: TV debate, political knowledge, learning, differential effects, Korean politics

This study delves into the effects of viewing TV debates on learning and addresses the following questions: Does viewing TV debates improve voters' political knowledge? Who is more likely to learn about candidates' policies after viewing debates?² Political scientists have been interested in campaign and media effects (e.g., Dalton, Beck, & Huckfeldt, 1998; Iyengar & Kinder, 1987; Miller & Krosnick, 2000). Iyengar and Kinder (1987) reveal that watching TV news can frame the way people think about politics. Dalton, Beck, and Huckfeldt (1998) show that editorial content can affect individual vote choice. These studies shed light on our understanding of campaign and media effects on political behavior. Nevertheless, the empirical evidence about the effects of TV debates on political knowledge is relatively slim. In particular, few studies examine heterogeneity in learning regarding debate watching.

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² In this study, learning means gaining knowledge.

Analyzing panel survey data conducted in the 2012 South Korean presidential election, we examine whether voters learn about candidates through viewing presidential debates. Specifically, this study estimates the effects of viewing TV debates on changes in political knowledge. Since they were introduced first in the 1997 Korean presidential election, televised debates have been a staple of presidential campaigns. With the increasing role of presidential debates in the Korean political process, scholars have investigated the effects of TV debates on political behavior (e.g., Cho & Hong, 2007; Kim, Koo, & Lee, 2006; Moon & Yang, 2009; Song & Park, 2009). Nevertheless, these studies are more descriptive than analytical. Also, it is rarely systematically studied how viewing presidential debates influences political learning.

According to the normative theory of democracy, a democratic system works better when citizens are politically knowledgeable. Informed citizens can elect better representatives who can make better policies for the represented. However, empirical evidence often leads the scholars of public opinion to take a dim view of the public's intellectual capacity, especially in the United States (Delli Carpini & Keeter, 1996; Kuklinski & Quirk, 2000). Indeed, it is puzzling that average levels of public knowledge about politics remain constant despite the impressive rise in available political information with the explosion of media channels. It might be true that only a small segment of the population benefits from the changed information environment. However, some studies (e.g., Buchanan, 1991; Iyengar & McGrady, 2007) maintain that voters tend to learn about candidates and their policies through the mass media during campaigns.

In modern democracies, citizens generally receive most political information through the mass media, such as newspapers, TV, and the Internet. For instance, voters learn about candidates' traits and policies through the news media during campaigns. In fact, research suggests several reasons for why TV debates can be more informative for voters compared to other forms of campaign communications (Benoit & Hansen, 2004; Carlin, Morris, & Smith, 2001; Maurer & Reinemann, 2006). For example, candidates are allowed much more time to explain their policy positions in debates than they are in television news or ads. TV debates also provide voters with a great opportunity to see and evaluate presidential candidates simultaneously. Thus, debates enable citizens to better understand candidates' issue positions.

Beyond the general learning effects of viewing debates, this study argues that the learning effects vary across individuals according to their levels of political knowledge. Research has shown that political knowledge significantly conditions media effects (e.g., Iyengar & Kinder, 1987; Miller & Krosnick, 2000). However, it is controversial who learns more and less. Some scholars (Gaziano, 1997; Tichenor, Donohue, & Olien, 1970; Viswanath & Finnegan, 1996) argue that politically knowledgeable individuals tend to learn more from incoming information than do relatively uninformed citizens. According to these researchers, political knowledge is related with cognitive power, which can influence learning in a positive manner. In contrast, Zaller (1992) maintains that the politically knowledgeable tend to reject incoming information if it is incomparable with their predispositions. They are less likely to change their behavior according to incoming information. Politically knowledgeable citizens also tend to learn less about political affairs from additional information sources compared to uninformed citizens (Norris & Sanders, 2003). Thus, conflicting expectations exist about the conditional effects of preexisting knowledge on learning.

This study tests the differential learning effects by analyzing panel survey data during the 2012 Korean presidential election. The findings of this study suggest that people acquire political knowledge from viewing TV debates, and the positive information effects are uneven across different people depending on their level of political knowledge. In particular, the least knowledgeable learn most from viewing televised debates, and the learning effects are absent among the most knowledgeable.

Effects of Debate Watching on Information Acquisition

Since the first presidential debates between Nixon and Kennedy were televised in 1960, a growing body of literature has proposed that voters can learn from televised debates (e.g., Becker, Sobowale, Cobbey, & Eyal, 1978; Benoit, McKinney, & Stephenson, 2002; Bishop, Oldendick, & Tuchfarber, 1978; Drew & Weaver, 1991; Jamieson & Adasiewicz, 2000; Lemert, 1993). Studies have found that voters generally learn about candidates' issue positions and statements through viewing televised debates. Furthermore, the learning effects tend to increase with the frequency of debate watching.

According to scholars (e.g., Maurer & Reinemann, 2006), there are some advantages of televised debates as information sources compared to other forms of campaign communications. First, candidates have ample amount of time to explain their policy positions during debates. Further, debates enable voters to compare candidates' personalities and their issue positions at the same time. Although candidates' statements in televised debates are sometimes ambiguous, they are not as vague as their statements delivered in TV news (Maurer & Reinemann, 2006). TV debates also hold the potential to enable citizens to learn about candidates without the influence of journalists' intervention. This is why McKinney and Carlin (2004) describe a televised debate as "a superior form of campaign communication" (p. 217).

However, some studies (Drew & Weaver, 1998; Weaver & Drew, 1995, 2001) contend that exposure to televised debates does not necessarily increase political knowledge despite the advantages. According to these researchers, the positive information effects among debate viewers are guaranteed only when the messages are delivered correctly. That is, debate-watching does not necessarily equal improved political knowledge among voters because the goal of candidates is not to educate voters but to maximize votes (Maurer & Reinemann, 2006).

The conflicting results may imply that the learning effects of viewing televised debates are potentially conditional upon the types of debates or recipients' abilities to assimilate incoming information. Some scholars (Holbert, Benoit, Hansen, & Wen, 2002; Holbrook, 1999, 2002), for example, find evidence that debate viewers tend to learn about candidates only from early debates, and the effects of watching later debates are considerably less. Indeed, early debates generally attract more attention from a majority of the electorate. Also, campaign information may be most useful to voters during the early stages of campaigns, when relatively little information is available and when many undecided voters seek information (Holbrook, 1999). In addition, Holbert et al. (2002) explain that later debates do not significantly improve citizens' political knowledge but only affect issue priorities. Other scholars (Benoit &

Hansen, 2004; Holbrook, 1999) demonstrate that voters tend to acquire more information about challengers than incumbent candidates because challengers are generally lesser known than incumbents.

Political Knowledge and Heterogeneity in Learning

Regarding the learning effects of debate watching, we focus on political knowledge. This study argues that the effects of debate viewing on information acquisition vary across individuals according to their levels of political knowledge. Previous studies (e.g., Delli Carpini & Keeter, 1996; Jerit, Barabas, & Bolsen, 2006; Tichenor et al., 1970; Viswanath & Finnegan, 1996) reveal that cognitive skills can determine the degree to which recipients can assimilate new information available to them, which can create gaps in information acquisition between individuals. For instance, Eveland and Scheufele (2000) insist that differences in communication skills and information processing abilities between groups of people with high and low levels of education provide a key cognitive explanation for increasing knowledge gaps. Yet the empirical findings of the literature are ambiguous about who learns more from information sources such as presidential TV debates.

On the one hand, political knowledge can condition learning in a positive manner. Political knowledge is closely related with cognitive abilities and skills, which are necessary conditions for information assimilation (Tichenor et al., 1970). In addition, prior knowledge facilitates the process of recalling stored information (Hsu & Price, 1993; Rhee & Cappella, 1997). In fact, highly educated individuals tend to have more skills and experiences in assimilating new information (Gaziano, 1997; Tichenor et al., 1970; Viswanath & Finnegan, 1996).

If political knowledge is positively associated with cognitive skills and abilities, then learning effects will be greatest among the most sophisticated and minimal among the least sophisticated. Even though debate viewers are assumed to receive an identical amount of information from debates, not all viewers correctly grasp incoming information, such as candidates' policy proposals. If political knowledge positively conditions information assimilation, then exposure to additional information sources will tend to increase the knowledge gap between the more knowledgeable and the less knowledgeable.

However, it is also important to note that political knowledge can condition learning in a negative manner. According to Zaller (1992), politically knowledgeable individuals are less likely to change their attitudes according to incoming information. Politically knowledgeable voters generally have more information about candidates, which may play a role in voters' predispositions during campaigns. That is, prior information can prevent assimilating new information from debates. Because political sophisticates may think they are well informed about candidates, they are less likely to be serious about incoming information that is not comparable with their preexisting knowledge.

In addition, because the politically sophisticated tend to be more informed about candidates before receiving additional information, there is relatively little room for learning. Holbrook (1999) describes the value of a given piece of information as a function of the relative scarcity of information when it is encountered. If politically knowledgeable voters already have been exposed to a lot of information about candidates, the likelihood of an additional piece of information being valuable is

relatively low. That is, the learning effects from viewing TV debates are minimal among the politically knowledgeable.

If politically knowledgeable citizens learn less through viewing TV debates, it may mean that those who are politically less knowledgeable learn most through watching TV debates. Some scholars (Norris & Sanders, 2003; Zaller, 1992), in fact, argue that positive information effects are largest among the least sophisticated since recipients holding small stores of existing political knowledge are more likely to learn from exposure to additional information sources. In other words, the existing knowledge gap can be reduced as a result of the growth of alternative information sources such as televised debates (Eveland & Scheufele, 2000; McLeod, Bybee, & Durall, 1979). Certainly, voters who are politically less knowledgeable generally do not have much information about candidates. Additional information, hence, is more valuable to them in terms of learning (Holbrook, 1999).

Television, in particular, is a more efficient information source to those who are less knowledgeable than to those who are more knowledgeable. According to previous research (e.g., Eveland & Scheufele, 2000; Kwak, 1999), media types can affect learning. For instance, Jerit, Barabas, and Bolsen (2006) demonstrate that, while the educated tend to learn most from newspaper coverage, the least educated benefit from television coverage almost as much as the most educated. Holbrook (2002) finds that TV debates tend to reduce the level of information inequality in the electorate. Thus, political knowledge can negatively influence learning.

The theoretical discussions in this section demonstrate that the conditional effects of political knowledge on learning is mixed and controversial. The information effects of watching TV debates can vary across individuals according to their preexisting levels of political knowledge. We test the heterogeneous learning effects employing empirical data collected in South Korea, and the next section introduces the data.

Research Design

This study argues that voters' political knowledge tends to increase after watching TV debates. Furthermore, we contend that the information effects vary across voters according to their levels of political knowledge. To examine the effects of watching TV debates on changes in political knowledge, this study analyzes panel survey data in the 2012 Korean presidential election.

The 2012 Korean Presidential Election and TV Debates

The Republic of Korea is an electoral democracy. The Republic of Korea was officially established in 1948 on the southern portion of the Korean Peninsula. Its democratic transition critically occurred in 1987. Since 1992, South Korea has been categorized as a democratic state. For instance, after its democratization in 1987, South Korea has kept the rating of a *free* state given by the Freedom House, which regularly evaluates and releases the report on political and civil liberties in countries. Korea adopts a presidential system with a unicameral congress, which is called the National Assembly. Korean adult citizens directly elect a president every five years. Incumbent presidents are not allowed to run for

reelection. Presidential and congressional elections are held separately (congressional elections are held every four years).

The 18th Korean presidential election was held on December 19, 2012. In the 2012 Korean presidential election, Park Geun-hye and Moon Jae-in were major candidates from the Saenuri Party and the Democratic United Party, respectively. Besides the two major parties, Lee Jung-hee of the Unified Progressive Party (UPP) ran for the presidential race as another significant figure, but she resigned a few weeks before the Election Day. Lee Myung-bak of the Saenuri Party was the incumbent president in the election. Park won the election by earning about 52% of popular vote and will serve as the 18th president of South Korea until February 2018. Moon received about 48% of the popular vote. Park is the first woman president in Korea.

In the 2012 Korean presidential election, four TV debates were held on December 4, 5, 10, and 16. Park and Moon participated in three of the four debates together (December 4, 10, and 16). The December 5 debate was for minor candidates.³ According to the laws about elections and political parties in Korea, candidates should satisfy certain conditions to participate in TV debates between major candidates. For instance, major candidates are those whose parties have more than five seats in the National Assembly. Lee Jung-hee from the Unified Progressive Party did not participate in the last debate and withdrew her candidacy on December 17. During the debates, the candidates responded to questions from their opponents, audiences, and experts for about two hours. They discussed several policy issues, such as economic policies, welfare programs, and unification proposals.

The TV ratings for the major debates are about 34.9% on December 4, 34.7% on December 10, and 29.7% on December 16.⁴ The TV debates in 2012 attracted about 10% more viewers than the debates in the 2007 presidential election. Also, the ratings of the debates were generally higher than the average TV ratings of the regular shows during the week. In sum, a significant number of voters were interested in the election and watched the televised debates in 2012.

To assess various effects of the debates on voters, the Korean Association of Party Studies, sponsored by the National Election Broadcasting Debate Commission, conducted a panel survey before and after the debates.⁵ The number of survey participants is 1,541 in the pre-debate survey and 1,002 in the post-debate survey. The pre-debate survey and the post-debate survey were conducted between November 30 and December 4 and between December 21 and 25. The surveys are designed to evaluate

³ According to the laws about elections and political parties in Korea, candidates should satisfy certain conditions to participate in TV debates between major candidates. For instance, major candidates are those whose parties have more than five seats in the National Assembly.

⁴ In the 2012 presidential election, several broadcasting companies televised the debates. The ratings are based on the three major broadcasting companies: MBC, KBS, and SBS in Korea (Nielsen Korea).

⁵ A professional survey company (Research and Research) conducted the surveys, which are based on the computer-aided telephone interview method. The population of the survey is all eligible voters. Survey respondents are sampled proportionally according to region, sex, and age (stratified sampling). The research company has conducted several nationwide surveys in Korea.

the TV debates, and they include questions regarding debate evaluations, political knowledge, party support, and vote choice. This study analyzes the survey data to examine the arguments introduced previously.

Variables

We explore whether viewing TV debates helps voters learn about candidates. As mentioned previously, this study regards learning as improvement in political knowledge. The surveys include questions about political facts, which are used to measure political knowledge. Scholars of public opinion and political behavior (e.g., Delli Carpini & Keeter, 1996; Zaller, 1992) have used these types of survey questions to measure political knowledge.

In the pre-debate survey, respondents are asked to answer four questions about political facts.⁶ The post-debate survey contains five questions about candidates' policy proposals. Respondents are asked to match candidates with their policy proposals. These two sets of questions provide useful information regarding voters' political knowledge and information acquisition. Each question is used to create a political knowledge variable by counting correct answers. For example, in the pre-debate survey, if a survey respondent correctly answers all four questions, this observation is coded as 4. If he or she provides wrong answers to all the questions, it is coded as 0. This study compares these two political knowledge variables to estimate changes in political knowledge. The dependent variable is political knowledge after watching televised debates, which is measured by using the questions of policy proposals in the post-survey. Prior political knowledge is measured by using questions about political facts in the pre-debate survey, which is used as an independent variable in the following analyses.

As mentioned previously, the primary independent variable in this study is viewing TV debates. The post-debate survey includes several questions about debate watching. First, the survey simply asks the respondents whether they viewed any of the four TV debates. Second, the respondents are asked to answer how many debates they watched during the campaign period. In addition, the survey includes a question about attention to the debates. The responses range from 4 (*pay great attention to the debates*) to 0 (*do not watch any of the debates*). As well as the frequency of viewing TV debates, the level of attention to TV debates may matter for learning. (This variable may also control for the effects of political interest on learning.) This study uses these three questions to evaluate the information effects of watching TV debates. According to the theoretical prediction presented earlier, these variables positively influence the dependent variable.

One of the main arguments in this study is that prior political knowledge conditions learning. Voters who are politically knowledgeable can learn the most by viewing TV debates thanks to their cognitive skills and abilities. In contrast, voters who are less politically sophisticated can assimilate more information from watching televised debates because they are less likely to resist incoming information. Thus, preexisting political knowledge is the conditional variable, and it is measured by using the questions

⁶ The questions are about the length of presidential term, the length of congressional term, the name of the incumbent prime minister, and the name of the current president of the National Assembly.

about political facts in the pre-debate survey. As introduced previously, this study creates a political knowledge variable by counting correct answers to the questions.

In addition to the main variables, we consider that various factors can affect learning. First, political knowledge can be improved during campaigns. Citizens can talk about candidates and debates. Also, they can search for more information after watching televised debates. This study controls for the effects of information search and discussion on political knowledge after watching TV debates. The post-survey includes two questions related to information search and discussion after viewing televised debates: "How often did you discuss issues and candidates after viewing televised debates?" and "How actively did you search information after viewing televised debates?" They are coded from 0 (*not at all*) to 4 (*a lot*). These questions are used to control the effects of extra activities on learning after watching TV debates.

A group of scholars (Iyengar & Kinder, 1987; Miller & Krosnick, 2000) argue that people who trust the news media are more likely to be influenced by the incoming information from the news media. In other words, trust in the news media can affect political knowledge. Hence, media trust is included in the following empirical models as a control variable. The pre-debate survey asks the respondents about how much they trust national TV networks, which mainly air the debates. The responses to this question range from 0 (*do not trust at all*) to 3 (*trust most*).

Predispositions can be another factor influencing political learning. For instance, Klapper (1960) argues that predispositions, such as partisanship and ideology, tend to minimize the effects of the news media on political behavior. That is, people who have strong partisanship and ideology are less likely to be influenced by incoming information. Hence, this study controls for the effects of partisanship and ideology on changes in political knowledge.

Both partisanship and ideology variables are measured as strength regardless of the directions. The survey respondents are asked about their party support. If a respondent does not support any political party, it is coded as 0. If one supports a certain party, it is coded as 1. The survey does not ask respondents *how much* they support their parties. Respondents are also asked to place themselves on a unidimensional ideological space ranging from *most liberal* (0) to *most conservative* (10). This study codes both *most liberal* and *most conservative* as 5 and *moderate* as 0. Hence, the ideological strength variable ranges from 0 to 5. The stronger individuals' predispositions (regardless of the directions), the less likely they are to learn from watching presidential debates.

This study also considers socioeconomic and demographic effects on political knowledge. Questions about education and income are used to measure citizens' socioeconomic status. Education is measured as the level of schooling, ranging from 0 (*elementary school*) to 4 (*graduate school*). Income is measured as the level of family income ranging from 0 to 9. In particular, education can be a critical factor that positively influences political knowledge because education can be a proxy for cognitive power or learning capability (and prior political knowledge is already included in the models. Age and sex are also included as demographic variables. In Korea, the voting age is 19. Age is measured as respondents' age minus 19. For the sex variable, male is coded as 1.

Statistical Methods

The dependent variable of this research is political knowledge after watching televised debates. We measure it by counting correct answers about candidates' policy proposals from the post-debate survey. For the purpose of convenient computation, this variable is standardized with its mean and standard deviation. The values of this variable are real numbers, and the variable is fairly normally distributed. Hence, this study analyzes the data by using the ordinary least squares methods.⁷

This study argues that viewing TV debates positively affects political knowledge. The following econometric setup is the baseline estimation model of this research. In the econometric model, the political knowledge variable is the dependent variable, and the TV debate variable is the main independent variable. The econometric model includes multiple control variables introduced in the previous section.

$$\text{Political Knowledge}_i = \alpha_0 + \alpha_1 \text{TV Debate}_i + \alpha_2 \text{Prior Political Knowledge}_i + \alpha_j \text{Control Variables}_i + \varepsilon_i.$$

One of the main arguments in this study is that learning effects are conditioned by prior political knowledge. To test this argument, we use interaction models (Brambor, Clark, & Golder, 2006). Because we expect that prior political knowledge conditions the effects of watching TV debates on learning, the TV debate variable and the prior political knowledge variable are interacted. The following econometric model simplifies it.

$$\text{Political Knowledge}_i = \beta_0 + \beta_1 \text{TV Debate}_i + \beta_2 \text{Prior Political Knowledge}_i + \beta_{12} \text{TV Debate} \times \text{Prior Political Knowledge}_i + \beta_j \text{Control Variables}_i + e_i.$$

In the model, β_{12} represents the interaction effects between the exposure to TV debates and prior political knowledge. However, we are advised to be cautious when interpreting the interaction effects in statistical estimations. In particular, it does not necessarily mean that there is no conditional effect even though the coefficient estimate of the interaction is statistically insignificant (Brambor et al., 2006). The marginal effects of the TV debate variable are $\beta_1 + \beta_{12} \text{Prior Political Knowledge}$. That is, the effects of the TV debate variable depend on the variable of prior political knowledge. And even if β_{12} is zero, the effects of watching TV debates on learning are not necessarily zero. Hence, this study graphically reports the marginal effects of the TV debate variable on the dependent variable according to prior political knowledge

⁷ If the variable is not standardized, then the negative binomial regression models can be used, but the estimation and interpretation of the interaction models will be more complicated.

based on statistical simulations (for more information about the simulation and graphical methods, see Brambor et al., 2006).

Results

This study argues that voters can increase their political knowledge by viewing TV debates and tests the argument by analyzing survey data. Table 1 presents the regression results and displays the results from three models. Model 1 includes two variables evaluating the effects of viewing presidential debates. The debate dummy variable is a dichotomous variable measuring whether an individual watched any of the four televised presidential debates. Viewing any of the four debates is coded 1; otherwise, this variable is coded 0). This binary variable does not consider the number of exposures to TV debates. Another primary independent variable, debate interest, measures the level of voters' attention to the debates regardless of the frequency of viewing debates. Model 2 replaces the debate dummy variable with the debate frequency variable, which indicates how many debates voters view. Finally, Model 3 includes all the debate-relevant variables.

Table 1. Watching TV Debates and Learning.

Variable	Model 1		Model 2		Model 3	
	Regression coefficient	SE	Regression coefficient	SE	Regression coefficient	SE
Debate dummy variable	.06	.26			-.08	.26
Debate frequency			.18**	.04	.18**	.04
Debate interest	.20**	.05	.10**	.04	.11*	.05
Prior political knowledge	.12**	.03	.11**	.03	.11**	.03
Information search	.06	.04	.05	.04	.04	.04
Discussion	.03	.04	.03	.04	.03	.04
Party support	.00	.07	-.00	.07	-.00	.07
Strong ideology	-.032	.019	-.031	.019	-.031	.019
Media trust	-.07	.05	-.08	.05	-.08	.05
Education	.17**	.04	.17**	.04	.17**	.04
Income	.00	.01	.00	.01	.00	.01
Age	-.00	.00	-.00	.00	-.00	.00
Male	.23**	.07	.22**	.06	.22**	.06
Constant	-1.61**	.27	-1.52**	.22	-1.47**	.27
<i>N</i>	771		771		771	
<i>R</i> ²	.14		.16		.16	
Akaike information criterion	2,057		2,038		2,040	

Note. The dependent variable is political knowledge after watching TV debates.

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

According to the estimation results from Model 1 (shown in Table 1), a simple exposure to TV debates does not significantly affect the dependent variable. The debate dummy variable is not statistically significant at any level in Model 1 and Model 3. The results suggest that viewing presidential debates does not meaningfully explain learning, especially when we do not account for the frequency of exposures.

The results from Model 2 and Model 3, however, indicate that the frequency of watching TV debates matters for information acquisition. The debate frequency variable is statistically significant in the second and third models. The size of the positive effects is about .18. In other words, citizens' political knowledge tends to increase about .18 standard deviations after watching an additional debate while controlling for their prior political knowledge.

Like the debate frequency variable, the debate interest variable shows statistical significance in all three models. That is, as voters pay more attention to presidential debates, they are more likely to learn about candidates' policies. If it is reasonable to assume that citizens paying more attention to TV debates are more interested in politics, then the results imply that citizens who have more interest in politics tend to learn more from the news media (Graber, 2010; Iyengar & Kinder, 1987).

In addition to the debate-related variables, the prior political knowledge and education variables turn out to be significant predictors of learning according to the results shown in Table 1. The prior political knowledge variable, which is measured as voters' political knowledge before they watch TV debates, positively affects the dependent variable. That is, prior political knowledge is positively associated with political knowledge after watching televised debates. The results imply that politically knowledgeable voters tend to acquire more information after watching televised debates.

Like prior political knowledge, education level positively affects citizens' learning (see Table 1). Education can represent various factors, such as socioeconomic status or cognitive/analytical power. In other words, people with higher levels of education tend to learn certain things more efficiently and effectively (Price & Zaller, 1993; Robinson & Levy, 1986). The results imply that citizens with more education better assimilate information from televised debates, a finding that is comparable with previous empirical findings (e.g., Jerit, Barabas, & Bolsen, 2006).

Among the demographic factors, the male (sex) variable shows statistical significance in all three models. That is, men tend to have more political information. The gender gap in political knowledge may be caused by motivations (Delli Carpini & Keeter, 1996; Mondak & Anderson, 2004). For instance, women are generally more interested in local affairs and know more about local politics than men (Delli Carpini & Keeter, 1996). Because the survey are about national rather than local politics, the questions of political knowledge in the surveys can be gender biased and result in the gender gap in learning.

Conditional Effects of Political Knowledge on Learning

The results shown in Table 1 suggest that viewing TV debates positively affects learning. In particular, the frequency of watching televised debates and the level of attention to debates significantly increase voters' political knowledge. These results are comparable with previous studies (e.g., Benoit & Hansen, 2004; Benoit, McKinney, & Stephenson, 2002; Holbrook, 1999; Miller & Mackuen, 1979). Benoit and his colleagues (Benoit & Hansen, 2004; Benoit et al., 2002), for instance, find that voters can learn candidates' policies and increase their issue knowledge by viewing debates.

However, most previous studies rarely delve into who is more likely to learn through watching TV debates. Some scholars (e.g., Hillygus & Jackman, 2003; Iyengar & Kinder, 1987) argue that campaign and media effects can vary across individuals. We examine who learns most from viewing televised debates by focusing on voters' prior political knowledge. To test the differential learning effects, this study uses interaction models. Table 2 reports the regression results from the interaction models.⁸

In the two models shown in Table 2, both the debate frequency and debate interest variables are interacted with the prior political knowledge (PK) variable. The models are developed to examine how political knowledge conditions the effects of viewing debates on learning. The regression results of the control variables shown in Table 2 are similar to the results shown in Table 1. According to the regression results shown in Table 2, the interaction variables are statistically significant. That is, prior political knowledge significantly conditions the effects of viewing debates on learning. To better examine the conditional effects of political knowledge on learning, this study uses statistical simulations and graphically presents the results in Figure 1 (Brambor, Clark, & Golder, 2006).

⁸ This study uses Model 2 in Table 1 as a baseline model. The results from the second model show the lowest Akaike information criterion score, which means that it is the most efficient of the three models. The debate dummy variable does not show statistical significance at any level. This study alternatively employs Model 1 and Model 3 as baseline models. However, the main findings in Table 2 and Figure 1 are not changed by using the alternative models.

Table 2. Learning and Political Knowledge.

Variable	Model A		Model B	
	Regression coefficient	SE	Regression coefficient	SE
Debate frequency	.39**	.08	.18**	.04
Debate interest	.08*	.04	.26**	.09
Prior political knowledge	.32**	.08	.34**	.11
Debate frequency × PK	-.08**	.03		
Debate interest × PK			-.07**	.03
Information search	.05	.03	.05	.04
Discussion	.03	.04	.02	.04
Party support	-.01	.07	-.01	.07
Strong ideology	-.030	.019	-.030	.019
Media trust	-.09*	.05	-.08*	.05
Education	.17**	.04	.17**	.04
Income	.00	.01	.00	.01
Age	-.00	.00	-.00	.00
Male	.24**	.06	.23**	.06
Constant	-1.98**	.28	-2.02**	.33
<i>N</i>	771		771	
<i>R</i> ²	.17		.17	
Akaike information criterion	2032		2035	

Note. The dependent variable is political knowledge after watching TV debates. PK = prior political knowledge.

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

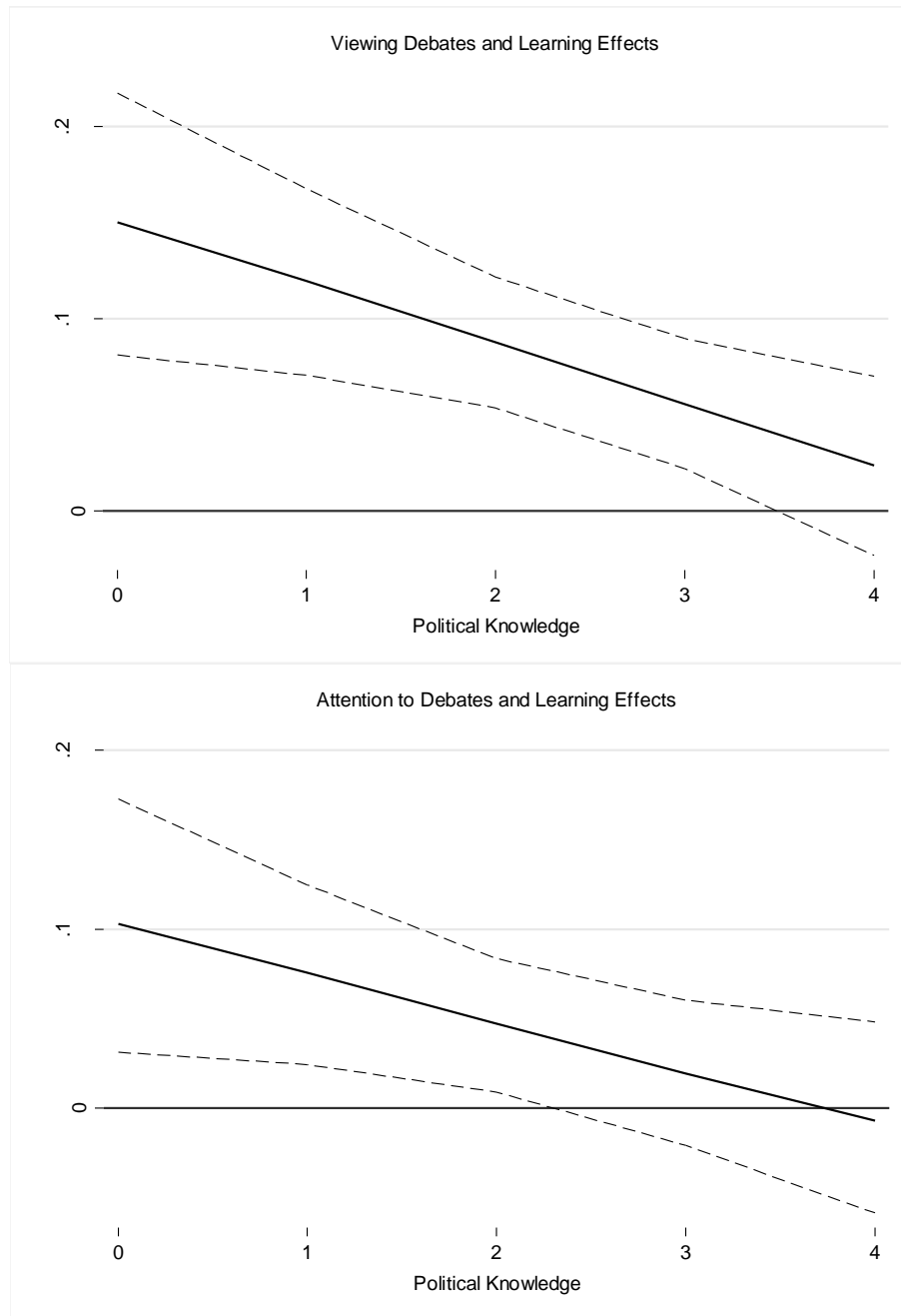


Figure 1. Conditional effects of political knowledge on learning.

Figure 1 contains two panels, which present the conditional effects of political knowledge on learning. The results shown in the top and bottom panels are from Model A and Model B, respectively, in Table 2. In both panels, the x axis represents the level of political knowledge. The y axis denotes the marginal effects of viewing debates and attention to debates. In both panels, the solid line illustrates the conditional effects of political knowledge on learning, and the dotted lines represent the 95% confidence intervals of the effects.

The results shown in the figure support the argument that media and campaign effects vary across individuals (Hillygus & Jackman, 2003; Iyengar & Kinder, 1987). According to the results shown in the top panel, the marginal effects of watching additional TV debates tend to decrease as political knowledge increases. The effects are statistically insignificant even among the most politically knowledgeable. The results imply that politically knowledgeable citizens do not learn much from watching televised debates. In contrast, those who are least sophisticated politically tend to learn the most as they watch more TV debates. The marginal effects are about .15 among the least politically sophisticated.

The results shown in Figure 1 confirm the argument that prior political knowledge conditions the effects of viewing debates on learning. According to the findings shown in the figure, the conditional effects of political knowledge on learning are negative. The results show that viewing additional TV debates does not significantly affect political knowledge among the most politically sophisticated citizens. However, those who are least sophisticated politically tend to improve their political knowledge most through watching televised debates.

The bottom panel in Figure 1 shows the marginal effects of attention to TV debates on learning. Similar to the top panel, the effects vary across voters according to their levels of political knowledge. The marginal effects of attention to TV debates tend to decrease as political knowledge increases. The marginal effects are not statistically significant when the level of political knowledge is over three. Voters with the lowest level of political knowledge tend to learn most by paying more attention to TV debates. In contrast, relatively more knowledgeable citizens do not learn significantly by paying more attention to TV debates.

According to previous studies (Price & Zaller, 1993; Robinson & Levy, 1986; Zaller, 1992), politically informed citizens tend to seek more information and better understand incoming information. However, they are less likely to accept incoming information and change their attitudes according to the new information. The results shown in Figure 1 support the argument. Most knowledgeable voters do not learn much from viewing and paying attention to televised debates. In contrast, the marginal effects of watching televised debates are significant and largest among the least sophisticated. That is, citizens who are the least knowledgeable politically tend to learn more from viewing and paying attention to TV debates.

Conclusion

As the amount of information available to the public increases through a wide range of channels, expectations grow that the news media will contribute to citizens' political learning. Analyzing the effects of televised debates in the 2012 Korean presidential election, we examine whether the debates fulfill such expectations.

This study finds that voters tend to acquire political information from their exposure to TV debates. The empirical analysis also indicates that individuals are more likely to learn from viewing debates if they watch more debates pay more attention to them. The positive learning effects in this study are generally consistent with previous studies analyzing U.S. voters (e.g., Benoit & Hansen, 2004; Benoit et al., 2002; Bishop et al., 1978; Drew & Weaver, 1991). Certainly, more comparative studies are required to generalize the learning effects of viewing televised debates.

Moreover, this study demonstrates that the positive effects of TV debates on learning are heterogeneous across voters according to their levels of political knowledge. Indeed, citizens who are politically less knowledgeable tend to acquire more information than others. Regarding new media and political knowledge, some scholars (e.g., Bennett & Iyengar, 2008; Iyengar & McGrady, 2007) speculate a "Matthew effect" of information acquisition or polarization in political knowledge. That is, due to changes in the media environment, citizens who are more sophisticated politically become more knowledgeable, while citizens who are less sophisticated politically become less knowledgeable. However, according to the regression results reported in this study, media exposures are most influential among citizens who are politically least informed. That is, at least in terms of learning, viewing televised debates tends to reduce the knowledge gap between the informed and the uninformed.

Democracy requires an informed citizenry especially if the polity wants to make governments accountable. Indeed, the quality of democracy can be promoted when citizens can understand correctly what is occurring inside the government and who is responsible for policy outcomes. In addition, informed voters are more likely to turn out to vote because they not only have more political resources but also can perceive differences in candidates' policy positions (Delli Carpini & Keeter, 1996; Prior, 2005; Verba, Schlozman, & Brady, 1995). In short, an educated citizenry is necessary to sustain a broad-based, well-functioning democratic system. The basic premise of this study is that people can learn from viewing presidential debates, and the results support our claim. The implications are that televised debates may contribute to the establishment of an informed citizenry and make democracy work well.

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