

Young Adults' Knowledge of Politics: Evaluating the Role of Socio-Cognitive Variables Using Structural Equations

Silvina Brussino, Leonardo Medrano, Patricia Sorribas,
and Hugo H. Rabbia

Universidad Nacional de Córdoba (Argentina)

The aim of this study was to create an explanatory model that allows analyzing the predictive power of a set of variables related to political knowledge; more specifically, to analyze the relationship between the education level of young adults and the variables, interest in politics and internal political efficacy. We also analyzed the combined relationship between these variables, together with age, and political knowledge. We worked with a sample group of 280 young adults between the ages of 18-30 from the city of Córdoba (Argentina). The data was subjected to a structural equation modelling SEM analysis, which allowed for the corroboration of the following hypotheses: the higher the education level, the more the interest in politics; the higher the education level, the better the perception of internal political efficacy; the higher the education level, the more the political knowledge; the more the interest in politics, the more the political knowledge; and the better the perception of internal political efficacy, the more interest in politics. Moreover, the following hypotheses could not be verified: the older an individual, the more the political knowledge; and the better the perception of internal political efficacy, the more the political knowledge. The model obtained allows for discussion of the explanatory value of these socio-cognitive variables.

Keywords: political knowledge, interest in politics, political efficacy, young adults.

El presente estudio tuvo como objetivo elaborar un modelo explicativo que permita analizar el poder predictivo de un conjunto de variables que mostraron tener relación con el conocimiento político. Específicamente, analizar la relación del nivel educativo de los jóvenes sobre las variables interés en la política y eficacia política interna; además, la relación conjunta de estas variables y la edad sobre el conocimiento político. Se trabajó con una muestra de 280 jóvenes de 18 a 30 años de edad, de la ciudad de Córdoba (Argentina). Los datos fueron sometidos a un análisis SEM, permitiendo corroborar las hipótesis que indicaban que a mayor nivel educativo mayor nivel de interés político; a mayor nivel educativo mayor percepción de eficacia política interna; a mayor nivel educativo mayor nivel de conocimiento político; a mayor nivel de interés político mayor nivel de conocimiento político; y a mayor percepción de eficacia política interna mayor nivel de interés político. Asimismo, no se pudieron corroborar las hipótesis que postulaban que a mayor edad de los jóvenes mayor nivel de conocimiento político y a mayor percepción de eficacia política interna mayor nivel de conocimiento político. El modelo obtenido permite discutir el valor explicativo de las variables sociocognitivas.

Palabras clave: conocimiento político, interés político, eficacia política, jóvenes.

Political Knowledge (PK) is one of the core variables in the study of mass political behavior and differs from other components of political involvement for being objective rather than subjective. Citizens vary substantially not only in their levels of information or political knowledge but also in the content of this information: current issues, active individuals in politics and government, constitutional principles underlying the government, the real-life operation of the political system, among others.

Our approach to PK is formed specifically by socio-cognitive theory. Numerous studies (Brussino & Rabbia, 2007; Fiske, Lau, & Smith, 1990; Gordon & Segura, 1997; Rhee & Capella, 1997; Somin, 2006) maintain that PK is an indicator of the degree of development of political systems. As a result, exposure to political information, motivation, and cognitive ability define the cognitive process and the learning or level of PK. From this analytical perspective, motivation, ability and opportunity are inextricably connected. Among the motivational dimensions, Van Deth (2000) refers to interest in politics as the degree to which politics appeal to the curiosity of citizens. In this regard, it would be equivalent to paying attention, which is a necessary prerequisite for learning any subject. On the other hand, starting from the theory of autoefficacy, it can be understood how people judge their own capabilities, and how these autoperceptions of efficacy affect an individual's motivation and behavior (Bandura, 1986). The feeling of personal efficacy is a cognitive mechanism related to individuals' judgments about their own capabilities; based on these judgments, they will organize their knowledge and carry out their actions. Abramson, Aldrich, and Rohde (2002) maintain that people who feel that they have political efficacy can feel psychologically motivated to become involved and participate in politics. In this line of thought, the model proposed by Bennett (1995) maintains that education and the level of intelligence affect cognitive abilities, which are essential for people to become politically informed. Meanwhile other socio-demographic variables, such as age, ethnicity, gender and socio-economic level, affect people's opportunities to acquire information on politics, while the force of partisanship, the concern for the results of an election, and the psychological involvement in public issues shape the motivation to pay attention to political affairs. Previous studies suggest that motivational level plays a very important role in relation to PK (Abramson et al., 2002; Bennett, 1994; Luskin, 1990).

As can be seen, PK has been frequently utilized as a dependent variable in order to identify the factors that supply the elements needed to carry out the prediction of this construct (Bennett, 1988, 1989, 1990, 1994, 1995, 1997; Bennett & Bennett, 1989; Cassel & Lo, 1997; Delli, Carpini, & Keeter, 1996; Frazer & Macdonald, 2003; Lambert, Curtis, Kay, & Brown, 1988; Luskin, 1990;

Mondak, 1995; Mondak & Anderson, 2004; Pettey, 1988; Verba, Burns, & Schlozman, 1997; Weaver & Drew, 1993). Among the variables indicative of PK, studies have stressed formal education level, age, ethnicity, gender, household income, interest in politics, level or frequency of political discussions, IQ, occupation, degree of partisanship, dependency on newspapers, and internal political efficacy (Bennett, 1997; Delli, Carpini, & Keeter, 1996; Frazer & Macdonald, 2003; Lau & Heldman, 2009; Mondak & Anderson, 2004). However, even if the factors associated to PK are numerous, they are not equally considered in all studies; that is why it seems that they should be pointed out in detail.

Political Knowledge and Internal Political Efficacy (IPE)

Several studies have found that PK is related to political efficacy, since both serve as predictors of political participation (Bennett, 1997; Brussino & Rabbia, 2007; Brussino, Rabbia, & Sorribas, 2009; Kennamer, 1990; Landrum, Cashin, & Theis, 1993; Soule, 2001). Those citizens who have a higher tendency to believe that they can understand and participate in politics will know more about agents and political dynamics. The study conducted by Morin (1996) revealed that 66% of those interviewed with less PK agreed that "politics is too complicated to understand", in comparison with the 33% of those citizens with more political knowledge.

It should be taken into account that Bennett (1997) maintains that the relationship between PK and internal efficacy is complex, since believing that one cannot understand politics has different meanings for those politically uninformed in comparison to those who rank high in the PK scales. His study only used as a measure of political efficacy the statement "politics are too complicated" (which was part of the original scale from Campbell, Gurin, & Miller, 1954), because it captures the component *ability* of internal political efficacy. Based on this element, he obtained the correlation $r = .35$ between both variables. In spite of this, the two variables only share 12% common variance which indicates that some people, despite believing that they can understand public issues or that they have the capability to become involved in politics, do not score high in the PK scale. The author concluded that a low score in internal political efficacy on the part of those who are less informed means an acknowledgement of scarce capacity or feeling of inadequacy to act as a political agent; on the other hand, in those well informed, it may indicate a lack of trust in the government and its agents or even a certain degree of political cynicism. The use of the entire scale of internal political efficacy showed that among those interviewees with low scores in PK, those who were less certain of their capacities were the ones who agreed with the statement "politics is too complicated".

Political Knowledge, Education, and Interest in Politics

Previous studies related to political behavior emphasize the strength of the relationship between conventional teaching and political participation. According to Schlozman, Verba, Brady, and Erkulwater (1998), when examining the relationship between education and political activity, the former is seen to have multiple effects, direct or indirect, on participation. In this sense, the authors maintain that those who are more and better educated are more interested in politics, know more about politics (PK), and tend to develop psychological orientations based on this implication. In turn, those who have higher education levels have higher probabilities of developing, maintaining and putting into action certain abilities in different contexts (including political environments), which enable more involvement in political activities (Brady, Verba, & Schlozman, 1995). In agreement with these findings and in spite of the separation in years and locations of their studies, Dalton, Flanagan, and Beck (1984); and Vilas Nogueira (2003) state that the education level, in its aggregated projection, is an important macro-social condition for the degree of political involvement in citizens. On the other hand, the work of Torney-Purta (2004) points out that demographic variables allow to significantly differentiate the level of PK; for this author, moreover, the probability of voting depends on the education background of the household and on the status of being a native citizen (versus that of an immigrant).

Van Deth (2000), in contrast, believes that politics is a rather abstract and highly voiced issue, which is why it seems logical that the level of studies will correlate positively to the subjective¹ interest in politics. Furthermore, other studies maintain that interest in politics interacts positively with political knowledge (Klesner, 2003; Lau & Heldman, 2009). Nevertheless, the growth in the complexity of public issues and the quantitative increase in available political information impose rising demands to the citizens' capacities, which means that for a given individual PK is not guaranteed solely by formal education. In turn, the greater availability of information about politics is not necessarily related to a stronger belief in one's own competence or a better understanding of political issues. On the other hand, it becomes necessary to consider the

validity itself of the content of the available information, that is to say that citizens can be deceived and consequently misinformed. In other words, Maravall (1996) states that when citizens are subject to manipulation with regards to information, paradoxically, their specific interest in politics may facilitate their own control over politicians.

According to the data obtained by Delli Carpini and Keeter (1996) in samples of North Americans between 1988-1989, the education level and interest in politics constitute the most important indicators of PK. The interviewees with high levels in education and interest in politics received a lot of information, which is why they do not often give answers of the "Don't Know" type. Their understanding of information is good but not perfect, as shown by the fact that the interviewees tended to answer incorrectly one or two questions from the PK scale. At any rate, similarly working with American samples, Soule (2001) found that in spite of the increase in the levels of formal education, the level of political knowledge among US young adults was almost the same as 60 years ago. This puzzles observers due to the wide existing evidence of a strong positive relationship between both variables.

In contrast to other studies, the analyses performed by Mondak (2000)² of PK as a dependent variable consider the answers "Don't Know" and "Incorrect" separately (1- the percentage of questions that a person answered correctly, 2- the percentage of "Don't Know" answers, and 3- the percentage of incorrect answers). According to this classification of answers about political knowledge, the author found significant effects with relation to the variables, Education Level and Interest in Politics, in the three years studied.

Other studies point out that although school subjects about civic duty and government system raise the students' knowledge of the political arena; it seems that by themselves, those subjects have insignificant effects on attitudinal and behavioral variables (National Assessment of Educational Progress, 1990; Niemi & Junn, 1998; Patrick & Hoge, 1991). In this sense, it would be the process more than the content of political education that would have an important influence on personal attitudes (Hahn, 1999). That is why education has been evaluated in other terms, that is to say, not only by the formal level achieved by participants or the number of courses, but also by variables such as "classroom atmosphere".³

¹ For this author, three separate concepts can be identified as components of interest in politics: subjective interest (of a cognitive nature), importance given to politics in one's own life (in absolute and affective terms), and relevance (relative salience of an evaluative nature) attributed to politics (Van Deth, 2000).

² Data from Studies on National Elections 1992, 1994 and 1996 are used as a source.

³ Regarding this, see the operationalization of the concept of democratic classroom atmosphere developed by Ehman (1969), from which the Scale of Classroom Atmosphere is derived.

In a study of international scope, researchers concluded that young adults that had the opportunity to participate regularly in class discussions and were encouraged to express their opinions, correlated positively with PK and Interest in Politics and negatively with authoritarian attitudes (Torney, Oppenheim, & Farnen, 1975). It may be added that the results of other studies (Amadeo, Torney-Purta, Lehmann, Husfeldt, & Nikolova, 2002; Torney-Purta, Lehmann, Oswald, & Schulz, 2001; Torney-Purta & Stapleton, 2002) suggest that factors such as the emphasis from curriculum contents, academic expectations, classroom atmosphere (in which students are encouraged to actively participate by expressing their opinions), school atmosphere (in which students feel empowered), the news from television and newspapers, and the level of political discussion with parents, play an important role in raising the level of civic knowledge and the likelihood to vote.

Political Knowledge and Age

Analyzing the relationship between PK and age, Soule (2001) observed a general low level of PK and little political involvement in American young adults. On the other hand, an international study conducted on an adolescent population (between the ages of 14-19) evaluated democratic concepts and principles, aptitudes for interpreting political information such as cartoons and newspaper articles (excluding specific items about the government structure of any given country), and civic concepts (Torney-Purta, 2004). In the 15 countries with samples for both age groups (ages 14 and 16-19), older students were better informed than younger students; at the same time, they reported less trust in the government (Amadeo et al., 2002; Torney-Purta & Amadeo, 2003).

In distinguishing three categories of PK (the first referring to knowledge characterized as “textbooks” about the structure and process of the US government, the second referring to knowledge about US political history, and the third referring to knowledge about current matters in the US), Jennings (1996) noticed that young people scored better than adults in the first category (probably because they had just graduated from high school) and worse than adults in the other two categories. The PK of young people about current matters and history improved as age rose, while the knowledge from textbooks declined. In contrast, Delli Carpini and Keeter (1996) reported that young people in general knew less than those of more advanced age.

In accordance with all of the above, the aim of this work is to create an explanatory model that allows us to analyze the predictive power of a set of variables related to political knowledge; more specifically, to analyze the relationship between the education level of young adults and the variables interest in politics and internal political efficacy. We also analyze the combined relationship between these variables, together with age, and political knowledge. Finally, following the studies that challenge a

direct relationship between political efficacy and political knowledge (Bennett, 1997; Van Deth, 2000) and the postulates of the socio-cognitive theory concerning the mediating role of the motivational variables, between perceived efficacy and learning-knowledge, the analysis of the relationship between internal political efficacy and interest in politics is included (model specified in Figure 1). Consequently the following hypotheses are to be tested in the present study:

- The higher the education level, the more the interest in politics.
- The higher the education level, the better the perception of internal political efficacy.
- The higher the education level, the more the political knowledge.
- The older the young adult, the more the political knowledge.
- The better the perception of internal political efficacy, the more the political knowledge.
- The more the interest in politics, the more the political knowledge.
- The better the perception of internal political efficacy, the more interest in politics.

Method

Participants

Participants were selected using a non-random quota sampling (Lohr, 2000). The choice of this type of sampling was due to the need to improve the conditions of a typical non-random sampling. Although the selection of young adults is not at random, and therefore bias in the selection of participants is not removed, the use of this technique guarantees that the proportions of the sample, regarding demographic characteristics, reflect those of the population at large. In order to achieve this, following the estimated proportions set by the National Institute of Statistics and Census (INDEC), quotas for age, gender and socio-economic level were established. Participants were selected in four different locations of the city that are characterized by high concentrations of young adults (the city center, the main bus station, a public health institution, and the university student district). The sample was composed of 280 young adults from the city of Córdoba, between the ages of 18-30 (18-19 years = 19%, 20-25 years = 43% and 26-30 years = 38%). 50% of the interviewees were women and 50% were men; 31.8% belonged to the middle and upper socio-economical level, 25.8% were upper working class, 15.4% were lower working class, and 27.1% were underclass.

Measurement Tools

Data related to the participants' age and education level was obtained through the use of closed-ended, fixed-choice questions. On the other hand, the scale of Political Knowledge and Civic Knowledge (Brussino, Sorribas, & Medrano, 2008) was used in order to evaluate political knowledge. It lists a group of eight questions designed for measuring political knowledge (for example, "What is the name of the city mayor?") and civic knowledge (for example, "Are the state and government the same thing?"). The questionnaire was administered verbally, and each participant had to respond trying to give the best possible answer, which is why the interviewers were instructed to encourage concrete answers. The interviewer marked answers using a 3-point scale: correct, partially correct, or incorrect. The PK score was obtained from the sum total of the scale. Studies of internal structure validity, performed using factor analysis by the method of Principal Axes, showed a one-dimensional structure: both the Kaiser and Guttman rule of eigenvalues greater than 1 and the Scree graph showed the existence of one underlying factor that explained 43% of the variance in responses to the test (eigenvalue = 3.64). It should be pointed out also that the scale showed a satisfactory degree of internal consistency ($\alpha = .91$).

Internal Political Efficacy was evaluated with a locally adapted version (Brussino, Sorribas, Rabbia, & Medrano, 2006) of the scale of Craig, Niemi, and Mattei (1991). This scale lists seven items that measured the self-perceived capacity of competency and understanding of political affairs (for example, "I fully understand the most important political issues of my country"). Interviewees had to use the 5-point Likert scale, from strongly disagree (value = 1) to strongly agree (value = 5). The studies conducted to validate the internal structure of the scale by means of exploratory factor analysis (method of extraction of Principal Axes) indicate the existence of one underlying factor that explains 49% of the variance in all items. It is worth pointing out that in establishing the number of factors, both the Kaiser rule (eigenvalue = 2.93) and the Scree graph indicated the existence of one factor. On the other hand, an optimal internal consistency was observed when calculating Cronbach's alpha coefficient ($\alpha = .89$).

Finally, the Hahn Scale (Brussino, Sorribas, Rabbia, & Medrano, 2006) was adapted in order to measure the Interest in Politics variable. It has six items that evaluate the interest in political processes, or at least, in the results of such processes (for example, "I enjoy conversations about political issues and government"). The options to the questions are five: 1- strongly disagree; 2- disagree; 3- uncertain; 4- agree; 5- strongly agree. The results of the exploratory factor analysis (method of extraction of Principal Axes) indicate the existence of one underlying factor that explains 66% of the variance in responses. The existence of a factor was established using the criteria of Kaiser and Guttman (eigenvalue = 3.95) as well as the Scree graph. Together with this, the results obtained using

Cronbach's alpha coefficient ($\alpha = .90$) indicate an optimal internal consistency.

Procedure and Analysis of Data

The tools for collecting data were managed by specifically trained members of a research team from the Laboratorio de Psicología Cognitiva [Cognitive Psychology Laboratory]. The collection of data was performed individually and verbally, emphasizing the voluntary nature of participation in the study. Initially the interviewer asked information about variables related to demographic characteristics of the interviewee; if it corresponded to the quota that each interviewer had been assigned, he proceeded to administer the questionnaire; in cases which did not correspond to the quota, he thanked for the interviewee's time but did not proceed with the interview. The percentage of rejection was 10%.

To evaluate the proposed model, a structural equation modelling (SEM) analysis was performed. This type of analysis allows to empirically contrast theoretically constructed models and it has important advantages when compared to other statistical techniques, since it makes it possible to account for measurement error, estimate relationships with more than one causal link, and incorporate observable and latent variables to the analysis which improves the representation of theoretical concepts and statistical estimations (Tabachnick & Fidell, 2001). In this sense, two observable variables (education level and age) and three latent variables (interest in politics, internal political efficacy, and political knowledge) are integrated into the contrasts of the proposed model. All the analyses were performed using the SPSS 15.0 statistical package and AMOS 4.0 program.

Results

First, an exploratory analysis of data was performed in order to know the characteristics of the variables contained in the model and to verify the completion of the statistical requirements for the SEM. To do this, descriptive statistics of the mean and standard deviation were calculated, and asymmetry and kurtosis indexes were obtained to test the normality of distribution (Table 1). With the objective of determining whether the variables were normally distributed, Shapiro-Wilk and Kolmogorov-Smirnov statistics were estimated with corrections by Lilliefors: statistically significant results ($p < .01$) were observed in both, rejecting the hypothesis of a normal distribution in the studied variables. However, as pointed out by Pérez (2004), these normality statistics prove to be too sensitive to small deviations from normality when working with large samples. This is why it is recommended to use visual analysis of normality graphs as an alternative approach. With this aim, an analysis of q-q plot graphs was performed, which enables linearization of the normal distribution; since

Table 1
Descriptive Statistics for the Variables included in the Model

Variables	Mean	SD	Asymmetry	Kurtosis
Education Level	5.76	1.84	.95	-1.16
Age	23.38	3.62	.18	-1.07
Internal Political Efficacy	10.50	3.69	.13	-.46
Interest in Politics	16.69	5.97	-.10	-.72
Political Knowledge	14.11	4.77	.45	-.96

Table 2
Fit Indexes for the Confirmatory Factor Analysis for each Latent Variable

Model fit	Latent Variables of the Model		
	Internal Political Efficacy ^a	Interest in Politics ^b	Political Knowledge ^c
χ^2	8.27*	10.55*	21.03*
CFI	.99	.99	.98
GFI	.99	.98	.98
NFI	.98	.99	.96
NNFI	.99	.99	.97
RMSEA	.02	.06	.05

Note: ^a $df=7$; ^b $df=5$; ^c $df=12$

* $p < .05$

most points lay on the diagonal of the graph, the variables were considered to be normally distributed. Together with this, the values obtained for the asymmetry and kurtosis indexes (Table 1) were within the range of ± 1.5 , a result which was considered optimal for performing the planned statistical analyses (George & Mallery, 2001; Zimmerman & Kitsantas, 2005).

Variables with more than 5% of lost values were not observed, and only three atypical univariate cases and one atypical multivariate case were observed. We chose not to remove them on the recommendations of Hair, Anderson, Tatham, and Black (1999). Next, in order to verify the linearity of relationships, the dispersion diagrams between variable pairs were examined and the absence of quadratic components in the evaluated relationships was verified through the *Curvilinear Estimation* function of the SPSS 15 (Gardner, 2003); it was observed that all variables exhibited linear relationships with each other. Finally, a multicollinearity diagnostic between the variables was performed with the objective of identifying highly correlating or redundant variables. An absence of multicollinearity between the variables was observed, since values greater than $r = .90$ in the matrix of bivariate correlations (Tabachnick & Fidell, 2001) were not found, nor were small tolerance values (less than .10) or elevated VIF values (greater than 10; Martínez Arias, 1999).

Before estimating and evaluating the proposed structural model, a confirmatory factor analysis was performed to test the latent variables included in it. As pointed out by Byrne (2001), this analysis allows evaluating the measuring model for each latent variable establishing how it is related to the observable indicators. The obtained results are displayed in Table 2. In order to evaluate the fit of each model, multiple fit indicators were considered, more specifically: the Pearson chi-quadratic statistic, the comparative fit index (CFI), the goodness-of-fit index (GFI), the normal fit index (NFI), the non-normal fit index (NNFI), and the root mean square error of approximation (RMSEA). As can be observed, the values obtained for the fit indexes were optimal considering the criteria proposed by Hu and Bentler (1995) for values greater than .95 in CFI and GFI, as well as the criterion of Arbuckle (2003) for not working with models that exhibit RMSEA values higher than .08.

Once the measuring model for each variable was analyzed, we proceeded to evaluate the structural model specified in Figure 1. To do this, the identification of the model was evaluated comparing the number of data (sample variances and covariances) with the number of parameters to be estimated (Uriel & Aldas, 2005). It was observed that the model was over identified ($df = 171$), which is why we proceeded to contrast and estimate it.

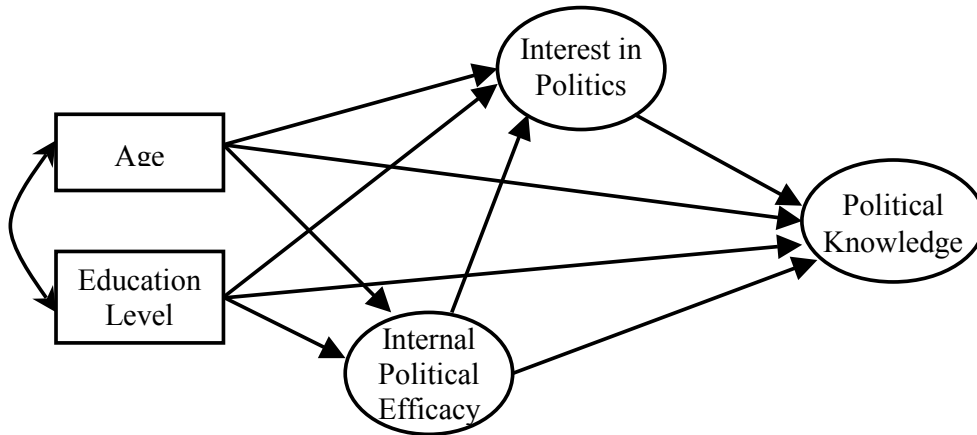


Figure 1. Model 1 of Political Knowledge

The estimation method used was Maximum Likelihood Estimation (MLE), recommended in specialized literature for being the most widely used and most accurate when the multivariate normality criterion is met (Lévy Mangin & Varela Mallou, 2003). In order to evaluate the fit of the structural model, the fit indexes recommended by Batista Foguet and Coenders Gallart (2000) were used, to wit: χ^2 , CFI, GFI, NFI, NNFI and RMSEA.

As can be observed in Table 3, the model presents moderate and low indexes. Given that some path coefficients did not show significant values, we decided to follow the recommendations of Byrne (2001) and remove those causal relationships in order to increase the parsimony of the model. Thus, the direct effect of age on interest in politics and on political efficacy was removed; the direct effect of internal political efficacy on knowledge was also removed. Together with this, we decided to remove Item 3 from the scale of political interest (“I am interested in learning more about how political parties work”) since it did not favor local independency of the factors. After removing this item and the parameters that were not significant, the fit of the model was re-evaluated and a slight improvement in some of the utilized indicators was observed (Table 3).

In this way, Figure 2 shows the significant estimate parameters with their corresponding standardized direct effects (β) and the coefficients of determination (R^2). It should be pointed out that Figure 2 does not include error terms for latent variables in order to achieve a greater clarity in the reading of the Political Knowledge Model.

As can be seen, the set of variables included in the model contribute 54% of the explication of variance in political knowledge, a significant amount if the criteria proposed by Byrne (2001) are considered. Following the recommendations by Edwards and Lambert (2007), when working with structural models, one must not only take into account the direct relationships between the variables of

Table 3
Fit Indexes for the Structural Models

Model Fit	Model 1 ^a	Model 2 ^b
χ^2	332.491*	281.0*
CFI	.93	.95
GFI	.90	.91
NFI	.88	.89
NNFI	.93	.94
RMSEA	.06	.05
R^2	.54	.55

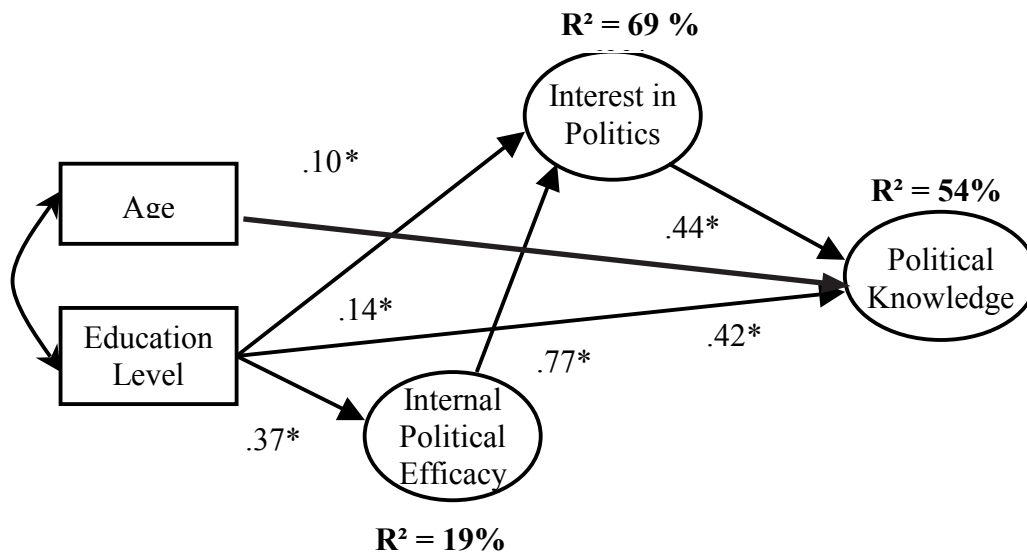
Note: ^a $df=171$, ^b $df=156$

* $p < .05$

the model, but also the indirect and total effects observed between variables (Table 4). In this way, it may be observed that the variable with the highest degree of influence on political knowledge is Education Level ($\beta = .61$), followed by Interest in Politics ($\beta = .44$) and Internal Political Efficacy ($\beta = .34$). Finally, although Age has a statistically significant influence, its predictive power on Political Knowledge is small ($\beta = .10$).

Conclusions

PK is an independent variable often analyzed by studies on political behavior. However, from different standpoints, some authors have also approached PK as a dependent variable, trying to unravel the relationship between PK and psycho-social and socio-demographic variables. In this field of study, the published empirical evidence has been



Note: * $p < .05$

Figure 2. Standardized Path Coefficients from Model 2 of Political Knowledge

Table 4

Standardized Total Effects (T), Direct Effects (D) and Indirect Effects (I) of the Variables included in the Model of Political Knowledge

Variables of the Model	2	3	4	5
(1) Education Level		T = .37 D = .37 I = .00	T = .42 D = .14 I = .28	T = .61 D = .42 I = .19
(2) Age		T = .00 D = .00 I = .00	T = .00 D = .00 I = .00	T = .10 D = .10 I = .00
(3) Internal Political Efficacy			T = .77 D = .77 I = .00	T = .34 D = .00 I = .34
(4) Interest in Politics				T = .44 D = .44 I = .00
(5) Political Knowledge				

Note: Statistical significance of the indirect effects was evaluated using the Sobel test; statistically significant effects were observed in all cases ($p < .05$).

varied and even contradictory. In view of this, it has been our aim to put forward a model that allows us to analyze the predictive power of variables such as Education Level, Interest in Politics, Internal Political Efficacy and Age in relation to PK. At the same time, we have sought to provide

evidence that helps clarify the relationship between political efficacy and political knowledge.

In general terms, the set of variables selected as indicators of political knowledge account for an acceptable percentage of variance according to the usual standards

in psychological research ($R^2 = .54$). Evidence is thus obtained that supports the postulates of Bennett (1995) and Abramson et al. (2002); that is to say, it appears that people have a higher level of political knowledge when they have the capacity, opportunities and motivation for becoming informed.

The value of education as a variable which affects the cognitive capacity and ability to understand and learn is noticeable. In fact, it is this variable that contributes most, both directly and indirectly, to the total variance of Political Knowledge. These results are consistent with those obtained by studies performed in other contexts (Mondak, 2000; Torney-Purta, 2004; Van Deth, 2000; Vilas Nogueira, 2003). On one hand, this relationship may correspond to a higher exposure to some of the contents evaluated in the PK scale (of the "textbook" type). Since it is a population composed of young adults, the probability to be or to have recently been in contact with institutions of formal education is higher, which coincides with the interpretation offered by Delli Carpini and Keeter (1996). Even if the present study does not address classroom atmosphere and particular classroom interactions, it may be assumed (as do Brady et al., 1995) that contact with the educational institution itself enhances the opportunities to acquire and develop both general abilities (for example, vocabulary) and specifically civic abilities (for example, participation in students' unions). On the other hand, the relationship between both variables can be understood by considering the degree of abstraction and complexity that the dynamics of politics can assume; it may be expected that a greater capacity for understanding is required.

However, as Van Deth (2000) points out and as it can be observed in the present study, PK is not absolutely guaranteed by the education level of citizens alone; instead, this relationship is affected by other variables such as Internal Political Efficacy and Interest in Politics. In order to improve our understanding of the observed relationship between education on one hand and the level of information and political knowledge of citizens on the other, it would be advisable to extend this kind of study to other age groups, while considering other types of political content different from those provided by schools and more oriented to capturing the conceptual integration of Political Knowledge.

In general, the obtained results confirm the importance of psycho-social variables. This is demonstrated by the behavior of motivational aspects, such as Interest in Politics and the feeling of Internal Political Efficacy, which significantly contribute to explaining political knowledge, in accordance with the findings of Brussino et al. (2009), Klesner (2003), Soule (2001) and Mondak (2000) among others. As regards the latter author, the interpretation proposed for the relationship between Internal Political Efficacy and PK should be highlighted. According to Bennett (1997), saying that a strong feeling of Internal Efficacy increases the level of PK is oversimplifying the relationship. Belief in internal efficacy does not increase the

PK *per se*, since other variables must be taken into account, such as individual capacities or available information, as well as the role of motivational variables such as Interest in Politics. This relationship could be due to the fact that people with a stronger belief in their own capacity to understand politics develop a higher degree of interest in it and consequently increase their own knowledge of subjects related to politics and generally to civic life. This allows us to hypothesize that the high levels of PK found in young adults who participated in the study are not due only to their recent contact with educational institutions but also to a certain degree of individual initiative fundamentally derived from the level of Interest in Politics.

A significant contribution of the age variable was not found in the present study. These results contrast with those reported in the studies of Torney-Purta et al. (2003) and Amadeo et al. (2002), according to whom older interviewees show a higher level of PK. However, the absence of a significant relationship between these variables could be derived from methodological rather than theoretical factors. In fact, an analysis of graphs of studentized residuals (Pérez, 2004) showed that a greater variation existed at some levels of the variable. Lack of homoscedasticity can make it difficult to accurately measure the relationship between the involved variables, since better predictions will be obtained in cases of dissimilar dispersion (Lévy Mangin & Varela Mallou, 2003). Because of this, additional studies should be conducted to evaluate the role of the age variable, its influence on PK, and other motivational variables such as Interest and Internal Political Efficacy.

Another aspect that should be highlighted is the importance of education as an indicator of cognitive capacity, over variables of a motivational type such as Interest in Politics and Internal Political Efficacy. As suggested by the studies of Vila Nogueira (2003) and Schlozman et al. (1998), citizens with a higher level of education have better opportunities to develop psychological orientations based on political involvement; they are more interested in politics and have a better perception of their own internal political efficacy.

In summary, the results yielded by the present study make evident the need to introduce into the analysis of political behavior the greater complexity of relationships between those psycho-social and macro-social variables for which empirical evidence has been reported over the last years. This would open an interesting path to a better understanding of the explanatory value of the set of factors under study.

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APPENDIX

Scale of Internal Political Efficacy

- 1 I would like to belong to the group where candidates for positions in government are chosen.
- 2 It would be interesting to run for an election.
- 3 I believe I am qualified for participation in politics.
- 4 I am as qualified as anyone else to occupy a position in government.
- 5 Sometimes politics seem so complicated that people like me are not able to understand what is happening.
- 6 I believe that I am better informed than other people about politics and government.
- 7 I fully understand the most important political issues of my country.

Scale of Interest in Politics

- 1 I enjoy conversations about political issues and government.
- 2 I am usually interested in political affairs.
- 3 I am interested in learning more about how political parties work.
- 4 It is interesting to watch or listen to news about politics.
- 5 I feel interested the moment political campaigns take place.
- 6 Reading information on politics is interesting.

Scale of Political Knowledge

- 1 Name the three powers of the State.
- 2 Name the government body which decides whether a law is constitutional.
- 3 Party with most members in the provincial legislature.
- 4 People responsible for appointing judges in the Supreme Court.
- 5 Government body in charge of making provincial laws.
- 6 Can a citizen witness sessions in the Legislature?
- 7 Which party does Luis Juez belong to?
- 8 Required majority for the Senate to veto a decree issued by the President.