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Peter Esaiasson & Mikael Persson


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Does Studying Political Science Affect Civic Attitudes?: A Panel Comparison of Students of Politics, Law, and Mass Communication

PETER ESAIASSON
MIKAEL PERSSON

University of Gothenburg

The article evaluates the civic implications of studying political science. Previous research has argued that learning rational choice models of political behavior could be detrimental to civic outcomes. However, results from our two panel surveys of students at Swedish universities show the opposite: studying political science has positive effects on trust, and increases the importance that students ascribe to voting. The first panel survey shows that political science students are more affected by their education than are students of law and mass communication. The second panel survey shows that the views of political science students at two different educational institutions changed in a similar way. The results also suggest that political science students became more skeptical towards a participatory democratic ideal and more appreciative of representative democracy.

Keywords civic attitudes, democracy, political science education

It is well established that individuals with higher education show higher levels of trust, are more knowledgeable about public matters, and are more likely to participate in politics (e.g., Delli Carpini and Keeter 1996; Verba, Scholzman, and Brady 1995). However, while there is general agreement that higher education is a powerful predictor of such civic virtues, it is less clear why this is the case and skeptics doubt that the relationship is causal (cf., Kam and Palmer 2008; Persson forthcoming). While most studies focus on the effects of higher education in general, this article contributes to the ongoing debate by exploring a factor that has gone relatively unnoted in previous research: the subject matter of the education received (cf., Hillygus 2005).

If any kind of educational content should affect political outcomes, it would perhaps be political science. We aim to evaluate whether exposure to political science substance affects how students relate to civic matters. The potential impact of political science courses is of great importance for several reasons. First, it is important to understand to what extent education—in the form of a strong treatment such as political science education—might alter individuals' attitudes and norms. Second, there is a need for the political science profession to better understand how our educational programs affect our students.

The rest of the article is organized as follows: The next section briefly reviews previous research on political education effects. Following this, we develop the

Address correspondence to Peter Esaiasson, Department of Political Science, University of Gothenburg, Box 711, Gothenburg, SE 405 30, Sweden. E-mail: peter.esaiasson@pol.gu.se

reasons why political science subject matter might be particularly consequential for how students relate to civic matters. Thereafter, the design of our empirical study is presented along with issues of data and measurement. We report findings from two panel surveys of students of political science and other academic disciplines in the Swedish university system. Results from the two panel studies, which are presented in the ensuing section, suggest that studying political science does indeed have (positive) civic implications. Finally, a concluding section summarizes the findings and discusses their implications for research into educational effects and for political scientists' understanding of our own educational discipline.

Previous Research on Civic Effects of Political Science Education

While the conventional wisdom states that education has positive effects on civic outcomes, some argue that learning rational choice is detrimental to civic outcomes (Steiner 1990). For example, studying concepts such as free-riding and noncooperative behavior will decrease students' levels of social trust. Moreover, learning about the instrumental voting model, according to which voting is irrational since the probability that one voter should affect the outcome is infinitely small, will decrease students' willingness to vote. In an empirical test of the latter proposition, Blais and Young (1999) exposed a group of students to a 10-minute presentation of the instrumental voting model. They subsequently found that the turnout rate was 7% lower in this group of students than in control groups; the difference was ascribed to a diminished sense of duty to vote.

In a response to Steiner, Johnson (1990) presents a less alarmist approach and argues that rational choice helps students to understand collective action and is not necessarily harmful for students' civic behavior and attitudes. In an empirical examination of these claims Crawford (2007) finds that the alarmist approach was not well justified; studying rational choice increased students' levels of trust and efficacy.

The claim about negative civic effects of learning rational choice is supported by several studies that target economics students. These studies find economics students less inclined to cooperate in strategic games (Carter and Irons 1991; Frank, Gilovith, and Regan 1993; Marwell and Ames 1981; Selten and Ockenfels 1998) and are more prone to take undue advantage of principals than are other students (Frank and Schulze 2000). Conversely, in a staged real-life situation, economics students were found to be more honest than students of other social sciences (Laband and Beil 1999; Yezer, Goldfarb, and Poppen 1996). Overall, there seems to be growing agreement that economics students behave more in line with their short-term self-interest than other students do. It is still debated, however, how much this is attributable to what is learned in economics studies or mainly a consequence of self-selection for studying economics (see Kirchgässner 2005 for a defense of economics education in this regard).

Yet, another line of research evaluates high school civic education courses. The classic study in the field comes from Langton and Jennings (1968). Their panel study showed civic education to be inconsequential for political participation—creating the dominant view during the subsequent decades. However, more recently, several survey-based studies have revealed that social science students at the university level show higher levels of political participation. Findings from the Baccalaureate and Beyond Longitudinal Survey shows that U.S. graduates who majored in the social

sciences (Hillygus 2005) or who earned degrees in law, public administration, planning, and the humanities (Lopez and Elrod 2006) participated more in politics and were more civically engaged than their peers in fields such as technology and natural sciences. Using British longitudinal data, Paterson (2009) finds positive effects on political participation from taking social science courses. Along a similar line, a British study of secondary schools also shows that students who study politics are more knowledgeable and attentive to politics (Denver and Hands 1990).

In sum, research on political education effects reveals contrasting conclusions. On the one hand, some fear that learning rational choice can have negative consequences for civic outcomes. Some empirical evidence backs up this claim, but there are also studies that do not find any support for such negative effects. On the other hand, there is reason to expect that political science education promotes a better understanding of society and in turn increases civic outcomes. Some empirical evidence shows support in this direction, survey research finds that social science students score higher on civic measures than other students. However, most of these studies are cross-sectional and cannot establish causality. Looking at civics or politics courses at the upper secondary level, some studies argue that there are no positive effects (e.g., Langton and Jennings 1968) while other studies find that they increase civic outcomes (e.g., Denver and Hands 1990; Niemi and Junn 1998). Hence, there is need for further studies.

The Specific Contribution of Political Science

Why then should political science matter for civic outcomes? Improved verbal cognitive proficiency and central social network positions, two causal mechanisms identified in previous research, are generic consequences of all university-level educations (e.g., Nie, Junn and Stehlik-Barry 1996). For it to be consequential, political science education must offer something unique. We suggest here that the substance of political science education differs from other disciplines that make it reasonable to expect particular strong effects of political science education on civic outcomes. The theoretical explanation relates to the understanding and internalization of democratic norms (McClosky and Zaller 1984; Sniderman, Brody, and Tetlock 1991). Due to the nature of the subject matter, civic norms and values are likely to be explicitly and frequently discussed in most political science courses. Hence, even though this mechanism is believed to apply to all types of university education, such learning might be more intense among political science students due to the focus on democratic norms in the curriculum. It is reasonable to expect that explicit reflection on democratic norms and values should improve civic outcomes. Hence, political science education does not only increase cognitive skills and increase knowledge (as all kinds of higher education supposedly does) but also offer an educational content that is directly relevant for democratic norms. Acquiring such knowledge is likely to start a process that might lead to changes in attitudes and norms. Indeed, in the literature the most frequently suggested mechanism is namely acquisition of knowledge; as students learn about democratic norms, they tend to understand the importance of the norms and embrace them (cf., Green et al. 2011; Nie, Junn, and Stehlik-Barry 1996).

Political scientists often claim that citizens have a poor understanding of politics (Fenno 1990). Hibbing and Theiss-Morse (2002) observe that people in general have a naive belief in achieving “common good” solutions to societal problems, and that

many citizens presume that conflict signals a process gone astray. Considering this, if political science brings a different understanding of how democracies work and how political processes function, it might motivate students to develop a more positive view of current political practices. Hence, contrary to the negative consequences of rational choice education on civic outcomes hypothesized by Steiner (1990), there are reasons to believe that political science might increase civic virtues since the educational experiences promote a better understanding of real-world political conditions.

In addition to value acquisition, *political discussion* is also put forward as a possible causal mechanism connecting education and political attitudes. Part of the explanation to why political science courses may affect attitudes might be that discussing political matters is beneficial for attitude formation (cf., Andersson forthcoming; Campbell 2008; Zimbardo and Leippe 1991). Students in political science tend to discuss politics with their peers, both in the classroom as well as when studying outside the classroom. A substantial amount of research show that by being active and expressing one's voice in political matters individuals learn more about the political issues and the political system. By taking active part in the learning process when participating in discussions, students tend to learn more and, as a byproduct, civic outcomes such as trust tend to increase.

Combining both these mechanisms—acquisition of knowledge and participation in discussions—leads us to a deeper theoretical explanation on how education is related to attitude formation. Drawing on previous social psychological research, we suggest that attitude formation is a consequence of a two-step process; firstly, individuals acquire knowledge as they receive information and, secondly, individuals process this information when they discuss it with their peers (cf., Berelson, Lazarsfeld, and McPhee 1954; Finkel and Smith 2011). In our case, we have a setting where it is very likely that this kind of process will occur; the students are both exposed to a lot of information with a relevant content and they are encouraged to discuss the material in class. In addition, they are likely to continue to discuss it with others outside the educational institution. Moreover, research on civic education shows that its impact is stronger when civic education is frequent (cf., Finkel and Smith 2011). In our case, the students are highly exposed to political science material since the courses are their full-time activity. Given the high frequency of exposure, it is reasonable to expect that the educational experience might alter their attitudes.

Finkel and Smith (2011) suggest that the second step in the two-step process—processing the information through discussions—is particularly effective when it comes to the effects of education on democratic attitudes. The reason is that political science students are likely to be seen as “experts” on politics and democracy within their social networks. Indeed, these persons are likely to be seen as authorities and others will ask for their “enlightened views” on these matters. In such situations, students are likely to embrace the views and values that have been emphasized as important and valuable in their political science classes. When taking such a role in discussion, we suggest that individuals are likely to internalize and be committed to the attitudes and norms they have been discussing during their education.

In this study, we specifically look at the impact of taking political science courses on the main indicators used in previous studies: social and political trust and willingness to engage in voting. In addition, to test whether political science students develop a more positive view of current political practices, we measure the support for representative versus direct democracy.

Design and Data

To separate self-selection and learning effects, we conducted two panel studies in which students were surveyed at the beginning and the end of a semester. Study 1 aimed to establish that the captured effects emanated from political science subject matter. For this purpose, we surveyed students of political science, communication, and law. Communication and law were chosen since they are neighboring academic disciplines, which means that the research design controls for themes shared by other social science disciplines.

Again, we would like to emphasize that all types of higher education are supposed to increase individuals' skills and cognitive capabilities, but the effects of political science education might be more intense due to the focus on democratic norms in the curriculum. Hence, we want to make sure that we do not just capture a general effect of social science education but the effects of political science in particular, and, for that reason, we use law and communication students as comparisons. The law and communication students are likely to have experienced an equivalent general increase in skills and capabilities but have not experienced an educational content focusing on democratic norms and values.

Study 2 was designed to ensure that the effects of political science instruction generalize across educational institutions. For this purpose, we surveyed political science students at two different universities in our national context. The political science courses surveyed were introductory courses at the universities of Gothenburg and Uppsala, two of the largest universities in Sweden.

Like most university courses at the bachelor level, the courses are comprehensive in load and scope. In terms of load, they were full-time courses (meaning that students were not required to take any other courses during the semester) running over some 20 weeks. In terms of scope, they covered a broad array of subfields including political theory, comparative politics (with a special emphasis on Sweden), public administration, and international relations. Roughly translated to the U.S. context, political science students in the study took four consecutive introductory courses in major subfields of the discipline. About one third of political science students had no prior experience of higher education (freshmen students), and a majority of students (about 60%) were 23 years or younger, 53% were females, and 88% described themselves as interested in politics. (Students of law and communication were more likely to be female and less likely to describe themselves as interested in politics.)

With regard to possibilities for curricular learning, political science students were introduced to some of the classic controversies in political theory, to basic institutional alternatives for modern representative democracies, to problems associated with implementing public policy, and to traditional theoretical perspectives on international politics. Substantial themes like these allowed for discussions more or less directly related to civic matters such as Plato's view of philosopher kings, and the likely consequences of proportional representation electoral systems for representation.

The assigned reading differed somewhat between the two studied educational institutions, but, in both cases, it can be characterized as standard political science texts. For example, the Gothenburg curriculum included primary texts by Plato, Mill, Dahl, Manin, Philips, and Putnam and textbooks such as *Comparative Government and Politics* by Hague and Harrop. While rational choice theory was not a major theme, classes at both educational institutions included some teaching about the basic rational choice models.

At both educational institutions, the primary teaching technique was lectures with targeted small-group discussions during each of the four modules (political theory, comparative politics, public administration, and international relations, respectively). Examination was through a mixture of written exams and take-home exams. Students were expected to display both factual knowledge and the capacity to apply theory to substantial political problems (for instance, how to design an electoral system to allow for the representation of various interests).

The introductory courses in law and communication, the interdisciplinary contrasts, were part of the regular educational programs offered by University of Gothenburg. Both courses were designed to give students a broad introduction to their respective educational field and both applied corresponding techniques for teaching and examination.

The panel surveys were based on written questionnaires consisting mostly of closed-ended questions. The teachers of each course, who agreed to allot 15 minutes of lecture time to the survey on two occasions, handled the practical details of data collection. Students were informed that participation was voluntary and were not promised any reward for participation. The two studies were carried out during two consecutive semesters.

To ensure the panel component of the surveys, participants were asked to sign the initial questionnaire with a code name of their own choice, which they were urged to memorize. To facilitate recollection at the time of the second panel round, participants were provided with a list of all code names used in the particular subgroup of students. This simple technique worked well in that only a handful of responses were lost due to identification problems.

The numbers of participants in the intradisciplinary panel were 72 and 153 from the Gothenburg and Uppsala universities, respectively. The corresponding figures for the interdisciplinary panel were 95, 120, and 61 for political science, law, and communication, respectively. The panel attrition rate varied between 15% (first study of political science students in Gothenburg) and 49% (law students). Panel attrition of about 50% might seem high but it is what could be expected since it is roughly equivalent to studies with similar designs (cf., John and Morris 2004; Persson 2012).

In this study, panel attrition is mostly due to students dropping out of the courses or not attending the class when the second questionnaire was distributed. Importantly, the differences in the dependent variables between students who participated in both waves and students who only participated in the first wave are negligible and statistically insignificant (results are available upon request). The results presented here only include students who participated in both waves of the survey, which reduces the sample further but provides more accurate estimates of the individual change over time.

As for the measurements, political trust was captured by a question asking how much the respondent trusts politicians. Social trust was captured by a similar question asking whether other people can generally be trusted. Ideally, measures of political engagement should capture actual behavior, but, for practical reasons, this study of relatively short-term changes during a semester of university studies (which was carried out between elections) will rely on an indicator that captures willingness to engage in the act of voting. More precisely, we have relied upon questions intended to capture the importance ascribed to voting in elections as a citizen virtue in a democracy (see Denters, Gabriel, and Torcal 2007 for a detailed presentation of

the measurement). To test support for representative democracy versus participatory democracy, we used a question in which respondents were asked to express their support for two alternative ideals of organizing democratic politics: Person A favors representative democracy whereas Person B favors participatory democracy. Support for respective ideal were measured on a 4-point scale (see the appendix in the supplementary file for question wordings). To facilitate interpretation, all variables are recoded to vary between 0 and 1.

Results

To assess educational effects, we present the mean levels of each item at T1 and T2, respectively. Moreover, we present the change over time and the related significance level. Significance tests have been conducted with paired *t* tests that take into account that responses are clustered within students (all *p* values reported are two tailed). We stick to this basic approach since it is illustrative and easily interpretable. For robustness checks, we employed fixed effects models using the change scores as dependent variables. We also employed models in which the T2 measures were used as dependent variables and which included lagged measures of the respective variables at T1 as controls. Both approaches produce nearly identical results to the ones reported.

Study 1: Comparing Political Science, Communication, and Law

Table 1 presents the means and differences of means for students in political science, communication, and law for political trust, social trust, the importance of voting, and conception of democracy. These results provide clear evidence that political science can make a difference over and above other fields of social sciences. First and foremost, the views of political science students change significantly and

Table 1. Study 1: Trust, virtue of voting, and conception of democracy among students

	T1 mean	T2 mean	Difference	<i>n</i>
Trust (Politicians) – Political Science	0.467	0.553	0.086***	50
Trust (Politicians) – Communication	0.444	0.431	–0.013	24
Trust (Politicians) – Law	0.481	0.457	–0.024	54
Trust (Citizens in general) – Political Science	0.649	0.732	0.083***	53
Trust (Citizens in general) – Communication	0.652	0.642	–0.010	31
Trust (Citizens in general) – Law	0.606	0.606	0.000	53
Virtue of voting – Political Science	0.820	0.869	0.049*	51
Virtue of voting – Communication	0.865	0.884	0.019	31
Virtue of voting – Law	0.891	0.857	–0.034	54
Conception of democracy – Political Science	0.723	0.628	–0.095***	47
Conception of democracy – Communication	0.680	0.660	–0.020	25
Conception of democracy – Law	0.656	0.628	–0.028	45

p* < .1. *p* < .05. ****p* < .01.

Table 2. Study 2: Trust among political science students at two universities

	T1 mean	T2 mean	Difference	<i>n</i>
Trust (Politicians) – Gothenburg	0.749	0.756	0.007	55
Trust (Politicians) – Uppsala	0.686	0.726	0.040**	86
Trust (Citizens in general) – Gothenburg	0.524	0.585	0.061*	49
Trust (Citizens in general) – Uppsala	0.514	0.578	0.064***	83

* $p < .1$. ** $p < .05$. *** $p < .01$.

positively in both political and social trust. The levels of trust among students of law and communication do not change significantly.

Moreover, political science subject matter also motivates students to ascribe higher value to voting in elections. Hence, contrary to the negative expectations expressed about learning rational choice models of voting, students find it more important to vote after studying political science. Interestingly, students in communication and law do not change their value placed on the importance of voting in elections.

Turning finally to the organizational aspects of democratic politics, we ask about relative support for participatory practices and representative practices. If political science substance increases student support of current representative practices, we would expect them to become less supportive of participatory democracy. From the results presented in the last three rows of Table 1, we learn that this is indeed the case. Low levels on this variable indicate support for representative democracy while higher levels indicate support for participatory democracy. Following one semester of studies, the attitudes of political science students are the only ones that shift significantly. Political science students become more supportive of representative practices as they stand today.

Study 2: Political Science at Two Educational Institutions

To test whether findings generalize to other educational institutions, Table 2 presents results for political science students at the Universities of Gothenburg and Uppsala. Although similarly designed, this study used fewer indicators than Study 1 and we can only estimate the change in levels of political and social trust.

In both Gothenburg and Uppsala, students increased their levels of trust after one semester. However, the increase in trust in politicians among Gothenburg students did not reach statistical significance. However, for the students in Uppsala, we see a significant positive change on this variable. As for social trust, we find significant increases in the trust levels at both universities. Overall, the results thus give reason to believe that political science courses in general are beneficial for students' trust.

Conclusions

The main finding of this study is that exposure to political science substance has no negative effects on trust or the importance ascribed to voting. Quite the contrary, studying political science seems beneficial for these outcomes. Compared with high school civics courses, the educational effects of political science subject matter are

quite impressive. Typically, research finds that high school civics courses most strongly affect civic knowledge, attitudinal effects being much less common (Niemi and Junn 1998). Indeed, a U.S. review of best practices in civics education reports only scattered positive effects on attitudinal measures when controlling for the initial views of students (Syvertsen, Flanagan, and Stout 2007).

Another important issue is whether the effects are long lasting or only short-term effects. Unfortunately, our research design does not permit us to test it. At the same time, it should be noted that very few studies in the field have evaluated long-term effects. For that reason, conducting panel studies covering longer time spans that could be used to analyze potential long-term effects should be a priority for future studies in this field.

However, overall our results suggest that we do not need to fear that teaching political science is negative for students' political and social trust, and willingness to engage in voting. Contrary to the negative consequences of rational choice education on civic outcomes hypothesized by Steiner (1990), we have shown that political science education increases civic outcomes such as trust and the importance ascribed to voting. We suggest that the causal mechanism at work is that the educational experiences promote a better understanding of society and the internalization of democratic norms. It is hard to see any alternative explanations to the results. One possibility is that the political science education is of better quality than that of the other disciplines (for example, better quality of the instructors), and that it is the greater quality of education that has increased the political science students' skills and capabilities rather than the educational content. While we cannot test this, we doubt that the qualities of the educational programs differ substantially and a more sound explanation is that the differences are driven by the educational content.

Acknowledging that rote learning praxis is difficult, much hope regarding civics education is currently attached to practices involving actual civic engagement, that is, learning by doing. The fact that political science instruction affects university students' civic outcomes indicates that theoretical approaches ("learning by thinking," as it were) can be effective as well. Along a similar line of reasoning, Niemi and Junn (1998, 149–154) argue that civics education should engage in serious political discussion of real-life political matters. Actually, adapting political science content to the reality of young people might be a productive way of improving civic education.

Finally, while results come out positively for civic attitudes, some aspects of our findings motivate rumination. In particular, it should be emphasized that students who took the current political science courses shifted towards supporting representative practices and away from a participatory ideal. To the extent that the findings are indicative of what political science in general does to its students, political science apparently educates students to defend the established rules of the game. As discussed in the literature review, economists are criticized for promoting selfishness among their students. Before pointing fingers, political scientists might reflect on inherent tendencies of our discipline to favor the status quo.

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Supplemental Data

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