Abstract

Ideology has been traditionally considered to be an explanation of political behavior, both inside and outside academia, which has been nowadays mostly abandoned. This paper sets out to investigate if a relationship between ideology and unconventional political participation exists, for the Costa Rican elections of 2014. It yields results that indicate that while the majority of Costa Ricans do not engage in political participation, there is a minority that does, with an identifiable emancipatory, statist and leftist ideology. A strong contradiction is found in the population between their ideological self-identification and their values and attitudes. The paper then argues in favor of more nuanced measurements of ideology than self-identification questions. Furthermore, it becomes apparent that each form of participation has a different relationship with the ideological elements. Therefore, studying them as if they were one should be avoided.

Key words: ideology, political participation, Costa Rica, political values, political attitudes

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1 This paper was based on a thesis written by the author while he was a research assistant at the Centro de Investigación y Estudios Políticos at the University of Costa Rica. The author would like to thank Ciska Raventós, Diego Fernández, Gerardo Hernández, Allan Abarca, two anonymous reviewers who kindly offered their suggestions and specially Adrián Pignataro and Ilka Treminio for their support and commentary on his research.

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I. Introduction

Since the word “ideology” was introduced in the social sciences, the concept has been understood as a force driving the actions of individuals. Intuitively we have come to expect political actions to be in accordance with people’s stated beliefs. Even more, the type of participation will be based on the ideology that individuals adhere to: The left demonstrates on the streets, whereas the right would engage through legal action, for example. These are common conceptions from everyday life that however could or could not be true, and as they are so commonplace, it would be interesting to corroborate if indeed they are correct.

Ideology, however, has been progressively abandoned in political science as an explanation for behavior, being replaced nowadays by either rational choice models or by the standard socioeconomic status model. This paper in no way argues in favor of abandoning either of those models, as political participation is clearly a phenomenon with a plethora of causes; but rather because of this, other plausible explanatory models should be investigated, and, amongst them, those that consider ideology an important variable.

As the relationship between ideology and conventional types of participation has become somewhat neglected, the case has been even more so for other forms of political participation. This could be due to the relatively recent interest in these unconventional forms of participation.

Therefore, this paper sets out to investigate if there is indeed a relationship between ideologies, which interpellate and organize political attitudes and values, and unconventional political participation. It does so for the case of Costa Rica during the presidential election of 2014, using the Cuarta Encuesta de Cultura Política y Comportamiento Electoral (Fourth Survey of Political Culture and Electoral Behavior), and particularly taking advantage of a new set of ideological questions in it, which allows for a more detailed approach to the subject, coupled with a multivariate analysis that goes beyond simple descriptive statistics.
One of the key ironies with regards to ideology is the constant declarations of its demise coming from both the left and the right (an ideological classification itself), while at the same time the world experiences a revival of ideological movements: Islamic fundamentalism, anti-imperialist-revolutionary nationalism, neo-authoritarianism in formerly-successful examples of democratization in Eastern Europe, political neopentecostal evangelism (Eagleton, 1997: 13), and now we can add to these the growth of radical or alt-right groups in the United States, Europe and beyond.

II. Ideology and political participation

Left, right and beyond: Ideology, values and political attitudes

On everyday parlance, ideology is widely understood to mean a strict and biased understanding of reality. Classical American sociology developed a definition that fits into this outlook and emphasized the lack of flexibility as its main characteristic. Edward Shills defined it as, for example: “explicit formations, closed and resistant to innovation” (Eagleton, 1997: 22, translated by the author). Similar definitions can be found in the works of Daniel Bell, Raymond Aron and the political scientist Robert E. Lane (Eagleton, 1997).

Campbell, McClosky and others introduced the topic to political science in the sixties, when it became common in the field to speak of political beliefs as integrated and coherent groups, focused on how to distribute resources on societies (Alcántara, 2004; Kuklinski and Peyton, 2007), “Political ideology serves as the glue that constrains and integrates political belief systems” (Kuklinski and Peyton, 2007: 46). There is an idea that ideology interpellates the individual, as questions designed to measure ideology “tap people’s predispositions to accept or resist the political communications they receive from their environment” (Kuklinski and Peyton, 2007: 59).
A problem with this definition quickly arose as researchers started to notice the lack of coherence in attitudes and values. Converse recognizes their existence, but as “idiosyncratic constructions” (Converse, 2007: 149), whereas Lane (1962) and Semetko (2007) identify changes in political attitudes as random and without coherence or logic, thus political scientists started to speak of the population not having ideology.

Perhaps it is possible to move away from this predicament by incorporating other traditions that have further developed the concept of ideology. Critical theorists, neo-marxists and the sociology of knowledge arrive at a common understanding of ideologies as “webs of significance”, composed of arrays of images, symbols, opinions, attitudes and values that relate to each other; they are a system, but that does not imply perfect coherence. (Adorno et al., 1950: 2; Sartori, 1969: 400; Laclau, 1986; Laclau and Mouffe, 1987; Eagleton, 2003: 119, 224).

The way that ideologies work is by interpellating individuals based on their values and attitudes, themselves organized by the ideologies, functioning as a cognitive shortcut (Sartori, 1969; Van Dijk, 1998; Kuklinski and Peyton, 2007: 46). Values and attitudes both seek to influence human behavior, as they exist only in the mind of the individuals, there is no way to measure them directly. Therefore, it is important to infer them by the way people evaluate activities and situations (Almond and Verba, 1963; Inglehart and Klingemann, 1979; Van Dijk, 1998; Halman, 2007).

Figure 1 represents the relationship between attitudes, values, ideology and participation. Values are the base of attitudes, both are contained and organized by ideologies, and as such the three pull the individual towards participation, as ideologies are visual images that represent “generalized social and political values that individuals may wish to see realized in a given political system (Fuchs and Klingemann, 1990: 213 in Opp et al., 1995: 66).
This more nuanced understanding of ideology also illuminates a pressing measurement problem. In almost all political behavior research, ideology is measured asking a self-identification question. The problems with this are numerous: most individuals have no political knowledge to properly identify themselves according to their values, attitudes and policy preferences; there is also the danger that they will identify superficially with an ideology but be guided in their policy preferences by a completely different set of values and attitudes. Using a single left–right scale also presents a problem when individuals have a completely different understanding of what those poles mean.

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3 As it would be demonstrated later in this paper, most Costa Ricans self-identify as center or right-wing, but in fact they present a strong preference for Government intervention in the economy and what might be called "conservatism". An even more extreme case can be found in Opp et al. (1995), in it, representative samples of the population in West Germany, Israel and Peru were asked to self-identify in the left–right scale. Around 15 % of each sample had to be dropped from the study, as they declared that they did not know what "left" and "right" meant.

4 For clarification purposes, think of a middle-class Marxist academic that constantly quotes *Das Kapital*, yet always votes for a conservative party.

5 This could happen, for example, if a researcher wants to use the scale to measure ideology on social, progressiveness vs. conservatism terms, but the respondent thinks of left and right as economic poles. If the respondent is a libertarian, he would rank himself as a right-winger, but in reality, he should be ranked as a left-winger.
nally, lack of honesty from the respondent while identifying with a controversial ideology is another problem.\(^6\)

Ideology has been traditionally classified as a left-right scale, which is of an economic nature, in which left means more government intervention and right less (Castles and Mair, 1984; Bobbio, 1996). This classification has, however, been heavily criticized for not considering other dimensions, and complementary ones have been proposed by Bobbio (1996), Kitschelt (Mair, 2007) and Nolan (Meek, 1999) amongst others, mostly focusing on individual freedom and self-government on social issues.

Inglehart’s big contribution to political science is the introduction of a postmaterialist values dimension. In this dimension, people move between two scales, a traditional-secular one, and a survival-self-expression one. This pole of individual self-expression and self-actualization is conceptually very similar to the previously presented idea of self-government on social issues.

A very strong correlation has been found between these two scales and others like the ones proposed by Schwartz, Hofstede and Triandis, Adorno, Rokeach, Lasswell, Eysenck and Brittain, suggesting that they all measure the same underlying concepts (Adorno et al., 1950; Altemeyer, 1996; Sidanius and Pratto, 1999; Meek, 1999; Inglehart and Oyserman, 2004; Schwartz, 2006; Sibley et al., 2006; Welzel, 2007).

Summing up, there seems to be two dimensions of political values and attitudes, a material or economic one, and a postmaterialist or social one. The first one corresponds to the traditional left-right scale, but would more accurately be called a statism-economic liberalism scale. The second scale would move between an emancipatory pole which emphasizes the individual and its self-expression, and a collectivist pole focused on the survival and cohesion of the group.

\(^6\) Attempts to find people that self-identify for a survey as followers of Nazism, fascism or anarchism would more than likely be a fruitless endeavor.
Unconventional political participation

These previously introduced concepts: ideology, attitudes and values—regardless of the dimensions in which they are located—seek to influence the voluntary actions of the citizenry that are directed themselves at influencing political decisions. That is the definition of political participation, a concept originally limited to electoral participation and activities related to elections (Lazarsfeld et al., 1948; Berelson et al., 1954; Lane, 1959; Verba and Nie, 1972; Van Deth, 2001).

In the sixties, the concept started to expand, by including petitioning to politicians and other forms of direct contact, as well as more controversial forms of participation such as protests and new social movements. At first there was some controversy on the field over whether these could be considered forms of political participation, but, as Van Death puts it: “protest and rejection are clear expressions of the interests and opinions of the citizens and should not be excluded from the field of political participation” (Van Deth, 2001: 6). Not only that, but as these are actions that clearly seek to influence policy, they fit with all the criteria to be considered political participation.

One of the proposed classifications for the different types of political participation is according to how soon political science accepted them as valid forms (Barnes and Kaase, 1979). Conventional participation is the one connected to voting and electoral participation in general, or directly contacting politicians, in which citizens try to directly influence policy between the boundaries of the political system. All the other types would be unconventional, as their influence is indirect and have only recently begun being considered participation (Van Deth, 2001; Marien et al., 2010).

A more theoretical way of looking at the distinction is by the contrast between “conventional and elite supporting” versus “unconventional and elite challenging” participation. Conventional includes electoral participation as well as community involvement, whereas the unconventional repertoire
of participation included petition signing, boycotting, rallies and demonstrations. In Great Britain, three dimensions of participation (conventional, mild unconventional and strong unconventional) have been found (Clarke et al., 2004).

Unconventional forms of political participation are more compatible with the postmaterialist values of younger generations, as they are more critical towards traditional channels in politics and parties, they prefer less hierarchical organizations and try to integrate their political action with their private sphere (Lichterman, 1996; Inglehart, 1997; Bennett, 1998; Wuthnow, 1998; Eliasoph, 1998; Norris, 1999; Lowndes, 2000; Bang and Sørensen, 2001; Putnam, 2002; Hustinx and Lammertyn, 2003; Hooghe et al., 2005; Hooghe and Dejaeghere, 2007; Marien et al., 2010).

Furthermore, Inglehart and Oyserman (2004) found congruence between postmaterialist values and behavior, for example people on the traditional end of the postmaterialist spectrum are less likely to recycle or join environmentalist groups, the opposite of people on the self-expression end, while Opp (1990) found a strong correlation between postmaterialist values and the perceived efficacy of protests.

Since Barnes and Kaase (1979) first identified ideological self-identification and postmaterialist values as predictors of protest behavior, both measurements of ideology have been extensively used in the literature for that purpose. Research on the relationship between self-placement in the left-right continuum and protest has led to contradictory results: while some papers find a correlation between self-identification with the left and protesting (for example, Muller, 1979; Muller and Godwin, 1984; Boulding, 2014), others found a U-shaped pattern where the extremes protest more. The previously mentioned contradictory findings could be related to the already explained problems with self-identification, or the explanation might lie in country-level differences (Opp et al., 1995).

Torcal et al. (2016) researched protests in several European countries, with findings that are consistent with the
previously mentioned literature: left-wingers were more prone to protest than right-wingers, except for right-wing extremists, giving credit to the U-shaped theory. However, the relationship between protestor’s and Government’s ideologies were unexpected: While left-wingers protest more under right-wing Governments, they were still more likely to protest under left-wing government than right-wingers. On the other side of the spectrum, right-wing extremists were more likely to protest under right-wing Governments.

The findings about the postmaterialist dimension are clearer. Dissatisfaction and elite-challenging participation fits better with postmaterialist values (Inglehart and Welzel, 2005), and indeed postmaterialist values and their equivalents in Schwartz Theory of Basic Values have proven to be strong predictors for protest (Opp, 1990; Schwartz, 2006, Welzel and Deutsch, 2012).

Finally, an interaction effect has been found between the ideological self-identification on the left (especially extreme left) and the profile of being a person on the emancipatory end of the postmaterialist spectrum. More specifically, using Schwartz’s Theory of Basic Human Values, Torcal et al. (2016) find that extreme left-wingers that score low on the values security and conformity, and high on universalism are significantly more likely to protest than extreme left-wingers that do not have those scores. The difference also exists for moderate left-wingers, although in that case the difference is not significant.

This interaction effect is particularly important, as it is precisely the type of interaction of elements in a web of significance that a more detailed definition of ideology demands: the proclivity to participate politically increases through the relationship between the elements, left-right self-identification and values, in this case.

Hypothesis
The general hypothesis of the paper is that there is a relationship between ideology (as defined in this paper and
measured through political values and attitudes) and unconventional political participation, for the Costa Rican case during the 2014 elections (HG).

A specific hypothesis for the material dimension is that people closer to the statist pole will reflect class-interest in their value and attitudes, and following Marxist, socialdemocratic or similar theories, would conceive the current State as responding to capitalists’ interests, therefore being more prone to engage in protest (H1).

If there is one consistent finding in ideology and protest literature, it is that individuals that see themselves as more left-wing are more likely to protest. Furthermore, solidarity is a highly valued leftist principle, also pushing people closer to that pole to participate in collective actions (Opp et al., 1995). On the other hand, there is no clear relationship between being closer to the liberal pole in the materialist scale and protest, or for that matter other forms of political behavior.

In the postmaterialist dimension, people with more emancipatory values would choose less institutionalized types of participation, in particular protest (H2), as it is elite-challenging, critical towards established political channels and non-hierarchical. This would be in line with the findings of Inglehart and Oyserman (2004), Opp (1990) and Torcal et al. (2016).

On the contrary, people closer to the collectivist pole would be interested foremost in keeping group cohesion, so they would avoid the confrontational protest and would prefer a more legal form of participation like administrative procedures (H3). Values and attitudes are, after all, normative beliefs, and as such they do not only prescript how society should behave, but also how individuals should behave. Obtaining social change through means that endanger group cohesion would not be acceptable for people with collectivist values.

III. The Costa Rican case

Costa Rica offers and interesting case of study for two reasons: the age of its democracy and the emergence of post-
materialist values in a sector of the population, which co-
exist with most of the population still espousing material
values.

With regards to the first reason, Costa Rica has had un-
interrupted democratic rule since 1949. Because of this Nor-
riss (2002: 225) classified it as the only consolidated de-
mocracy in Latin America. Costa Rica is then a particularly
valuable case to study new forms of participation because,
while it presents characteristics commonly associated with
old democracies like declining turnout and eroding party
loyalties, it is not what one would call a Western country,
and, as “much existing research on political participation
is based upon the United States as well as on established
Western European and Anglo-American democracies. Yet it
is not clear how far we can generalize more widely from
these particular countries” (Norris, 2002: 10).

As for the emergence of postmaterialist values in Cos-
ta Rica, a case could be argued against this happening in
an economically underdeveloped country. However, So-
jo (2010) clearly identifies social groups in the country that
have the characteristics of groups with postmaterialist val-
ues. This, alongside the cultural influence of postmaterial-
ist societies through globalization, suggests the possibility
of an emergence of postmaterialist political values and at-
titudes in certain sections of the population (Welzel, 2007:
191, R. Inglehart, personal communication, Friday, February
the 12th, 2016).

Aside from the uniqueness of the Costa Rican case, the
Cuarta Encuesta de Cultura Política y Comportamiento Elec-
toral itself presents a special opportunity to research ideol-
ogy in Costa Rica, as it contains a battery of questions on
the topic more detailed than in any previous survey applied
on the country, as well as several types of participation be-
yond turnout and campaign participation.

This last point is particularly relevant for mass behavior
literature, considering the observed increase in non-elec-
toral forms of participation all throughout the world (Marien
el al., 2010) as well as the lack of insight as to why an individual chooses one type of participation over another (Leighley, 1995).

As with many other countries in the world, in Costa Rica turnout has decreased in the last 20 years and the meaning of “politics” seems to have widened. Factor analysis applied to post-electoral surveys from 2007 and 2011 identified three types of political participation: “contact with politicians”, “institutional report” (administrative procedures) and “social demonstration” (protest) (Ramírez, 2010; Alfaro et al., 2012). Of these, “contact with politicians” would be a conventional form of participation, while both “administrative procedures” and “protest” would be categorized as unconventional.

While “administrative procedures” is similar to “contact with politicians” in as much as in both cases an authority is contacted, a key difference lies in that the latter involves an elected official, mediating concepts like voter support and accountability. Administrative procedures are more of a judicial act: both the ombudsman and the constitutional magistrados are not popularly elected but rather chosen as technocrats, and their actions are intended to be more legal than political. In a sense, administrative procedures are a politicization of the judiciary done by the citizenry.

Factor analysis is a common technique for identifying types of participation and has the advantage that it might capture case-specific variations, for example Bratton (1999) used it for the Zambian case and found four factors: voting, contacting, communing and protesting, of which the third was a unique category for that country.

While protest has a long history in Costa Rica, it has low legitimacy as it has been seen as an anti-establishment activity, unseemly in a social-democratic country. That said, the efficacy of it has shown a steady growth (Alfaro et al., 2012). People engaged in unconventional types of participation had been identified to be less individualistic, less authoritarian, against CAFTA-DR and mostly workers (Alpízar, 2013: 5).
There are currently two projects centered on measuring collective actions\(^7\) in Costa Rica. The first one is maintained by the *Programa Estado de la Nación (PEN)*,\(^8\) which registers all collective actions reported in the three most important newspapers in the country. The other database is PROTESTAS, maintained by the *Instituto de Investigaciones Sociales* of the University of Costa Rica (IIS-UCR), which uses a similar methodology but with different newspapers (Alpízar, 2014; Alvarado Alcázar, 2016).

Figure 2.
Total number of collective actions registered by the PEN and IIS-UCR databases per year, Costa Rica, 1992-2017

Figure 2 shows the number of collective actions per year. Workers are by far the most active in this type of partici-

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\(^7\) Collective actions are defined as: "Any event limited in the same space-time in which a collective or group of people participate to express a collective demand or grievance to a public or private entity" (*Instituto de Investigaciones Sociales–Universidad de Costa Rica and Programa Estado de la Nación*, 2015: 2). The database includes the following types of collective action: rally, march, blockade, strike, public declaration, complaint to State or international entities, meeting politicians, meetings, threat, violence against private property, breaking into private property, hunger strike, organizing a law proposal through popular initiative.

\(^8\) For completeness sake I used December 2017 as a cut off point for the data presented in this paper. I also decided to include the IIS-UCR data even though it is a much shorter period to show that at least the patterns correspond between both datasets. Fortunately, the IIS-UCR has data all the way back to the year 2000, and while at the moment they are in process of clean-up of the dataset, in the near future it should be possible to compare the two sets further.
pation, with 45% of all mobilizations being led by unions, which is in accordance to hypothesis H1. The engagement is also highly contextual: all the dramatic increases correspond to highly conflictive years. The black line corresponds to the PEN database, the gray one to the IIS.

IV. Research design

The *Cuarta Encuesta de Cultura Política y Comportamiento Electoral* was a personal and home survey with national coverage. The sampling method was two-staged, stratified by planning region and then with random simple sampling without replacement. The questionnaire was created by the *Centro de Investigación y Estudios Políticos* of the University of Costa Rica, between December 8th and 19th, 2014, based on the one used on *Abstencionistas en Costa Rica. ¿Quiénes son y por qué no votan?* (Raventós et al., 2005).

It was answered by 1601 persons, who were legal Costa Rican citizens over 19 years old who could vote in the 2014 election and had a place of residence. 968 of the participants were female, and the remaining 633 were male. The ages were between 19 and 91, with a standard deviation of 16.61.

Two batteries of the questionnaire were used: A - Political culture and participation, questions A-10 to A-19\(^9\); and

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\(^9\) The specific items that were used from module A are: "There are different forms to participate in politics. In your opinion, how effective do you believe it to be to solve a problem...?" This question is followed by: "In the last ten years, have you..." If the answer is yes, the follow up is: "Would you do it again?" In case the answer is no, the follow up would be "Would you be willing to do it?"

A10.- Meeting with a politician
A11.- Helping in a politician’s campaign
A12.- Signing a letter to a politician
A13.- Participating in a demonstration or a protest
A14.- Blocking roads in a protest
A16.- Filing an appeal to the Constitutional Court
A17.- Making a complaint to the Ombudsman
A18.- Meeting with governmental authorities
A19.- Sharing opinions in social media sites like Facebook or Twitter
E - Ideology, questions E-1 to E-15. In the first one the participants answered whether they had taken part in certain types of political participation over the last ten years, and whether they would do it again.

A scale of political participation intensity is then created to perform the factor analysis. This was done by assigning a value depending on the level of engagement with participation: 3 for those who had participated (whether they would do it again or not), 2 for those who had not but would, and 1 for those who had not and would not.

N/A’s were also categorized as 1, because it is assumed that a lack of response reflects either a lack of interest or knowledge about a form of participation. As the percentage of non-response is less than 3%, there is no danger of altering the statistical results; however, it is necessary to do it as the factor analysis cannot be done with missing values.

In battery E, a series of statements was read to the participants about potential roles the State could play to regulate society, and then they were asked whether they agreed or disagreed with the statements.10

“A15.- Calling the media to complain” was not included in the analysis, as in preliminary trials it did not load in any factor and diminished the explained variance. This question does not refer to the relationship without the citizenry and the State, either.

The specific question was: “Next, I will read to you a series of statements about the function and competences of the State. Please tell me if you mostly agree or disagree with them.”

E1.- The State should increase jail sentences to improve citizen’s security
E2.- The State should regulate media and the Internet
E3.- The State should keep Catholicism as the State religion
E4.- The State should legalize same-sex partnerships
E5.- The State should allow in-vitro fertilization
E6.- The State should allow the use and distribution of marihuana
E7.- The State should limit foreigners entering the country searching for work
E8.- The State should ensure free access to health-care and education
E9.- The State should be the main responsible in decreasing the gap between the rich and the poor
E10.- The State should guarantee that all workers can join a union
E11.- The State should limit companies that damage the environment
E12.- The State should regulate private businesses
E13.- The State should own the main businesses and industries of the country
E14.- The State should limit foreign products entering the country to protect national producers
To avoid collinearity problems, all the NA answers were replaced by 0.5, as it is one of the most common substitution techniques. The questions in this section are divided into two groups: materialist (E8–E14) and postmaterialist (E1–E7). Afterwards, the participants were asked to rate themselves in a 10-point left-right ideological scale.  

Considering that some of the questions between E1 and E14 represent a clearer ideological positioning, for each question, one is divided by the percentage of the population that answered negatively. After this is done, the results for all the questions on the same scale are added and the results are standardized.

As mentioned before, there are two dominating models for explaining political participation, the SES Model and the Rational Choice model. Institutional and cultural explanations, the latter of which includes values and attitudes, are also considered to explain participation. Variables that are considered significantly relevant for those models that are present in the Cuarta Encuesta are identified in Table A1.

A second canonical correlation will be performed (Model B), in which these variables will be included as controls. It is important to remember that this research does not put forward the idea that ideology will be the only, or even the most important predictor of political participation. Instead, what it sets out to prove is simply that it matters, that ideology is relevant to explaining political participation in the case of a non-post-industrial, non-developed Western democracy with a section of the population with postmaterialist values, like Costa Rica.

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11 “15.- When talking about political tendencies, many people talk about those who sympathize more with the left or the right. According to what “left” and “right” mean to you when you think about your political viewpoint, where would you be in that scale?”
V. Analysis

Ideological scales

Figure A1 (see Appendix) showcases the percentage of affirmative answers for each question in battery E. With regards to economic (material) matters, there is high support for government intervention to ensure access to basic needs like health and education, as well as protecting the environment and diminishing inequality. Support, however, decreases for purely economic matters, and it is low for state-owned enterprises. On the other hand, there is no clear trend for support in postmaterialist matters.

Table 1 shows three groups for both the materialist and the postmaterialist scales, as well as for the self-identification question. The first group would be the one with values below 4, the second group would have values between 4 and 8 and the last group would be the one with values above 8. It’s interesting to note that only 2% of the population can be identified as economic liberals whereas statists are a far bigger group (77.6%), which is in contradiction to the self-identification percentages. The postmaterialist distribution is more balanced between the center and collectivists, although there is still in this case a clear preference for social control.

Table 1.
Comparison between the materialist and postmaterialist scales and self-identification, Costa Rica, 2014

<table>
<thead>
<tr>
<th></th>
<th>Group I more social control</th>
<th>Group II center</th>
<th>Group III more freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materialist values scale</td>
<td>Statism 77.6%</td>
<td>20.4%</td>
<td>Economic Liberalism 2.0%</td>
</tr>
<tr>
<td>Postmaterialist values scale</td>
<td>Collectivism 46.2%</td>
<td>44.6%</td>
<td>Emancipation 9.2%</td>
</tr>
<tr>
<td>Ideological self-identification</td>
<td>Left 7.3%</td>
<td>58.3%</td>
<td>Right 27.0%</td>
</tr>
</tbody>
</table>
Exploratory factor analysis for political participation

The first function of the factor analysis explains 36% of the variance; the second one explains 16.7% and the third one, 14.5%. Only this three are chosen as relevant as they are the only ones with eigen values greater than 1, which is the condition that was set. Together these functions explain 67% of the original variance. To know which questions load which factors, one must look in Table 2 for correlations above 0.7.

Table 2. Rotated factor matrix, Costa Rica, 2014

<table>
<thead>
<tr>
<th></th>
<th>Contact with politicians</th>
<th>Protest</th>
<th>Administrative procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting with a politician</td>
<td>0.83</td>
<td>0.09</td>
<td>0.13</td>
</tr>
<tr>
<td>Helping in a politician’s</td>
<td>0.81</td>
<td>0.13</td>
<td>0.04</td>
</tr>
<tr>
<td>campaign</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signing a letter to a politician</td>
<td>0.72</td>
<td>0.14</td>
<td>0.21</td>
</tr>
<tr>
<td>Participate in a demonstration</td>
<td>0.15</td>
<td>0.86</td>
<td>0.09</td>
</tr>
<tr>
<td>or a protest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocking roads in a protest</td>
<td>0.03</td>
<td>0.87</td>
<td>0.03</td>
</tr>
<tr>
<td>Filing an appeal to the</td>
<td>0.19</td>
<td>0.13</td>
<td>0.85</td>
</tr>
<tr>
<td>Constitutional Court</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making a complaint to the</td>
<td>0.11</td>
<td>0.13</td>
<td>0.88</td>
</tr>
<tr>
<td>Ombudsman</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharing their opinions in</td>
<td>0.17</td>
<td>0.46</td>
<td>0.18</td>
</tr>
<tr>
<td>social media</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extraction method: Principal axis factoring. Rotation method: Varimax with Kaiser Normalization. The rotation converged in 5 iterations.12

Canonical correlation analysis

Canonical correlation analysis investigates the relationship between two sets of variables, by creating functions that maximize the said relationship. It is a more general case of multiple regression, but it also has multiple dependent variables. Each of the functions in the CCA has an associated

---

12 Question A18 (meeting with a Government representative) was eliminated in order to improve the goodness of fit. Question A15 (denouncing to the press) was not considered in the analysis as it was not a form of political participation.
vector (composed of structure coefficients) that works like the $\beta$ coefficients in a regression and maximizes the relationship. In other words, the structure coefficients represent the highest possible existent correlation between the sets of variables.

For this paper, the predictors for the types of political participation will be the previously created scales for materialist ($x_1$) and postmaterialist ($x_2$) values, as well as the ideological self-identification ($x_3$), as these three elements would be the elements of the ideological web of significance. For clarity’s sake, if ideology is $I$ and $e$ represents all the other unknown elements in the web of significance while $\beta i$ is an undetermined series of beta-weights, ideology can be defined as $I = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + e$.

For their part, the dependent variables will be contact with politicians ($Y_1$), protest ($Y_2$) and administrative procedure ($Y_3$). The analysis resulted in three functions with squared canonical correlations ($Rc^2$) of 0.03802, 0.02634 and 0.00024. Collectively, the model is statistically significant using a Wilk’s $\lambda$ of 0.93642 $F (9.00; 3538.80) = 10.75759, p<0.001$.

As the Wilk’s $\lambda$ represents the variability not explained by the model, then $1-\lambda=1-0.93642=0.06358$ represents the explained variability. This indicates that the model is significant, but its explanatory capability is only of 6%. It is important to point out that the Canonical Correlation Analysis considers $R^2$ values as low as 0.02 as significant (Alpert and Peterson, 1972).

Alongside that, the research question of this paper was concerned with the existence of a relationship between the two sets of variables, and it was never its intention to predict behavior. Taking those two facts into account, it is considered that the results are valuable enough to compare them with the hypothesis presented, although no predictive implications can be drawn. Now, as function I has a $Rc^2$ of 0.03802 and II of 0.02634, the addition of these two numbers is almost identical to the total $Rc^2$ of the canonical
correlation analysis. For this reason, only the first two functions are considered worthy of interpretation.

For the interpretation of Table 3, both the standardized canonical coefficients and the structure coefficients ($rs$) are important. The first, as previously explained, are equivalent to the $\beta$ coefficients in regression. They indicate how important a variable is to create the maximum correlation between the two sets of variables. The structure coefficients indicate how important that variable is without any distortion created by other variables. In both cases, coefficients above 0.4 are significant. The analysis then indicates that for function I, both ideological scales and all the types of participation were relevant, whereas for function II the relevant variables were self-identification, contact with politicians and protest.

The canonical correlation analysis indicates that, as people are more liberal in the materialist scale and more collectivist in the post-materialist scale, they become less likely to engage in any unconventional type of participation.

Aside from that, as people self-identify more with the right, they are more likely to contact politicians and less likely to protest. These findings fit with the specific hypotheses related to protest, but not with the one about administrative procedure. The ideology of the few that participate in unconventional ways would then be composed of elements such as statist and emancipatory values and attitudes as well as self-identification with the left.

### Table 3.
**Model A: Summary of the canonical correlation analysis, Costa Rica, 2014**

<table>
<thead>
<tr>
<th>Functions pair I</th>
<th>Functions pair II</th>
<th>Functions pair III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard coef.</td>
<td>$Rs$</td>
</tr>
<tr>
<td>Materialist values</td>
<td>-0.70</td>
<td>-0.66</td>
</tr>
<tr>
<td>Postmaterialist values</td>
<td>0.75</td>
<td>0.72</td>
</tr>
</tbody>
</table>
Before moving further with model B, a series of checks are performed between the control and independent variables, to ensure the lack of multicollinearity. Table A2 reports the Pearson correlation between metric variables, as well as the significance. Table A3 reports a chi-squared hypothesis test with an alpha of $\alpha = 0.05$ for the categorical variables, reporting first Cramer’s V and then the significance. Finally, Table A4 reports the relationship between metric and categorical variables with two eta coefficients: one for when the categorical value is the independent one, and one for when the metrical one is. Due to the size of the sample ($n=1601$) all the cases will appear as significant. The litmus test here is to identify which are high enough to cause multicollinearity problems, that is, a Person correlation, Cramer’s V or eta coefficient above 0.7. This happens in none of the cases, therefore it is safe to assume that there are no multicollinearity issues with model B.

Model B is a Canonical Correlation Analysis including the control variables. It produces three functions with squared canonical correlations ($Rc^2$) of 0.26393, 0.07845 and 0.01665. Collectively, the model is statistically significant using a Wilk’s $\lambda$ of 0.66703 $F(48.00; 4286.69) = 13.02473, p<0.001$. The variability explained by the model is of $1-\lambda=1-0.66703=0.33297$. Model B has then an explanatory capability of 33.30%. Once again, only the two first functions are worthy of interpretation.

In Table 4, function I indicates that education, being a member of voluntary associations, having an interest in
politics and democratic civic values all make it more likely for someone to engage in any of the three forms of participation, which is completely expected. Function II indicates that self-identification with the right, being older and having more democratic civic values all make it more likely for someone to contact a politician, and the relationship is inverse for protesting.

As can be seen, the materialist and postmaterialist scales are not significant in model B. Does this mean that they were some sort of intermediate variable between something else and participation? This seems unlikely, at least for the controls used, as the Pearson’s correlation, chi-square and eta tests indicate that there was no multicollinearity.

What is more likely is that the much more powerful explanatory variables in the model are “crowding them out”. The CCA has a limit to the amount of equations it creates to maximize correlation between the dependent and independent variables. Once it has been reached, the systems simply cannot correlate more, which can be seen in Table 4 in the $h^2$ coefficients, which are much lower than in model A. Simply put, adding more variables makes the maximum amount of correlation possible lower.

**Table 4.**
Model B: Summary of the canonical correlation analysis with controls, Costa Rica, 2014

<table>
<thead>
<tr>
<th></th>
<th>Functions pair I</th>
<th>Functions pair II</th>
<th>Functions pair III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard coef.</td>
<td>$Rs$</td>
<td>$rs^2$ (%)</td>
</tr>
<tr>
<td>Materialist scale</td>
<td>-0.19</td>
<td>-0.26</td>
<td>6.76</td>
</tr>
<tr>
<td>Postmaterialist scale</td>
<td>0.13</td>
<td>0.22</td>
<td>4.84</td>
</tr>
<tr>
<td>Self-identification</td>
<td>-0.03</td>
<td>0.05</td>
<td>0.25</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.12</td>
<td>-0.13</td>
<td>1.69</td>
</tr>
<tr>
<td>Age</td>
<td>0.05</td>
<td>0.11</td>
<td>1.21</td>
</tr>
<tr>
<td>Factor</td>
<td>Factor Score</td>
<td>Intercept</td>
<td>ndf</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------</td>
<td>-----------</td>
<td>-----</td>
</tr>
<tr>
<td>Elementary school dummy</td>
<td>0.39</td>
<td>0.37</td>
<td>13.69</td>
</tr>
<tr>
<td>High school dummy</td>
<td>0.24</td>
<td>-0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>University dummy</td>
<td>0</td>
<td>-0.43</td>
<td>18.49</td>
</tr>
<tr>
<td>Unemployed dummy</td>
<td>-0.18</td>
<td>0.12</td>
<td>1.44</td>
</tr>
<tr>
<td>Public sector dummy</td>
<td>-0.20</td>
<td>-0.29</td>
<td>8.41</td>
</tr>
<tr>
<td>Private sector dummy</td>
<td>-0.09</td>
<td>0.13</td>
<td>1.69</td>
</tr>
<tr>
<td>Owner dummy</td>
<td>-0.26</td>
<td>-0.11</td>
<td>1.21</td>
</tr>
<tr>
<td>Unknown sector dummy</td>
<td>0</td>
<td>0.14</td>
<td>1.96</td>
</tr>
<tr>
<td>Income</td>
<td>0.09</td>
<td>-0.10</td>
<td>1</td>
</tr>
<tr>
<td>Party loyalty</td>
<td>-0.03</td>
<td>-0.15</td>
<td>2.25</td>
</tr>
<tr>
<td>Voluntary association</td>
<td>-0.46</td>
<td>-0.62</td>
<td>38.44</td>
</tr>
<tr>
<td>Interest in politics</td>
<td>-0.25</td>
<td>-0.53</td>
<td>28.09</td>
</tr>
<tr>
<td>Civic values</td>
<td>-0.44</td>
<td>-0.68</td>
<td>46.24</td>
</tr>
<tr>
<td>Rc²</td>
<td>26.39</td>
<td>7.85</td>
<td>1.67</td>
</tr>
<tr>
<td>Contact with politicians</td>
<td>-0.83</td>
<td>-0.82</td>
<td>67.24</td>
</tr>
<tr>
<td>Protest</td>
<td>-0.40</td>
<td>-0.40</td>
<td>16</td>
</tr>
<tr>
<td>Administrative procedure</td>
<td>-0.41</td>
<td>-0.40</td>
<td>16</td>
</tr>
</tbody>
</table>

**VI. Results**

The factors obtained in the exploratory factor analysis are the same ones identified in the two previous elections,
which indicates that they are stable in time. The percentage of participation for each factor is 22.6%, 12.1% and 6.8%, which showcases that all the unconventional forms have low participation. It is worth noting that protest had more participation than administrative procedure.

The ideological scales indicate that most Costa Ricans are both heavily in favor of State intervention in the economy and of collectivist attitudes that strengthen social cohesion, yet they self-identify more with the center and the right. Due to the ideological characteristic of the Costa Rican population, the specific hypothesis would point to administrative procedure being high, whereas protest would present a contradiction, as the tendency to engage in it would increase with statism but decrease with collectivism. However, non-electoral political participation is in fact low in Costa Rica.

The canonical correlation analysis performed indicated that more liberal people in the materialist scale and more collectivist people in the post-material scale are less likely to participate in all the unconventional repertoires of political participation. This is the same to say that people with more statist and emancipatory variables are more likely to engage in unconventional participation, which is what sub-hypothesis H1 and H2 suggest.

The results with regards to H3 (collectivists are more likely to engage in administrative procedure) are inconclusive. Function I of model A indicates the inverse relationship than the hypothesis, however function III supports the hypothesis. This could mean that once the maximum correlation between all forms of participation has been explained by function I, then collectivists do indeed prefer administrative procedures. However, as function III adds so little to the explanatory power of the model A, it is better to avoid any interpretation.

Finally, some other findings are that those that self-identify with the right more are more likely to contact politicians and less likely to protest, and those who participate
the most in unconventional ways are identified as being statist in economic matters, emancipatory in social matters and self-identifying with the left.

It should be noted that the canonical correlation analysis identifies both the scales and self-identification as influential on the decision to participate, although the values and attitudes offer a more complete explanation. It is also important that both the dominant ideology and the ideology of those that participate in unconventional ways are statist.

VII. Conclusion

This paper set out to investigate the relationship between political values and attitudes, interpellated and organized by ideologies, and unconventional political participation in Costa Rica during the 2014 elections. The general hypothesis HG (values and attitudes will influence unconventional participation) is confirmed.

Sub-hypothesis H1 (being closer to the statist pole in the materialist scale will make people more likely to protest) and H2 (being closer to the emancipatory pole in the postmaterialist scale will make people more likely to protest) cannot be confirmed, even if the results of model A indicate the same direction as the hypothesis.

H3 (being closer to the collectivist pole in the postmaterialist scale will make people more likely to engage in administrative procedures) is rejected because no clear relationship emerges between the variables.

Factor Analysis confirms the types of participation found in previous studies (Ramírez, 2010; Alfaro et al., 2012): contact with politicians, protest and administrative procedures. Most Costa Ricans have values and attitudes that support State intervention in the economy and strengthen social cohesion, yet they identify with the center and the right. Unconventional political participation is low, and most common amongst people that are statist on the material di-
mension, emancipatory on the postmaterialist one and self-identify as leftists.

The fact that self-identification, materialist and postmaterialist values together make people more likely to participate in unconventional fashion, points in the same direction as the findings of interactive effects between values and self-identification in Torcal et al. (2016): ideology as a web with interactions is what drives the participation, not just one of the individual elements.

Having said this, values and attitudes have a greater explanatory power than ideological self-identification. In model A, function I is mostly concerned with values and has a $R^2$ of 0.03802, whereas function II is mostly related with self-identification and has a $R^2$ of 0.02634. This means that, in model A, values and attitudes account for 3% of the changes in all the forms of participation, whereas self-identification accounts for 2%.

The lack of consistency between ideological self-identification in a left-right scale and the material and postmaterialist scales is a fundamental finding of this work. Be it because of lack of political sophistication, because it is tapping into a different dimension or simply because, as Converse considered, people have no clear political doctrine, the fact remains that when presented with specific economic policy, Costa Ricans favored statism, when presented with social policy they favored collectivism, and yet they still identified as center-right. This finding would have gone unnoticed if this paper did not pursue a more nuanced measurement of ideology by: i) measuring actual attitudes towards policy instead of just self-identification and, ii) measuring in more than one dimension.

Previous studies on the effects of ideology in general, and in Latin America in particular, declare that leftists protest more by merely looking at the self-identification. Just as the Costa Rican case is grossly mis-identified ideologically if we go only by self-identification, that could also be the case in many other studies, perhaps explaining the con-
tradicory findings as to whether protest potential increases as people move to the left or to the extremes.

If nothing else, this paper should show that if we are interested in the aggregate direction of the policy preferences that citizens hold with regards to how resources are used in a society, ideology must be understood as a web of significance and heuristics and not just self-identification.

Recalling the illustrative equation for ideology, \( I = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + e \), if a type of participation is a function of ideology (amongst many other elements), the beta weights of values and self-identification can help us to potentially identify the structure and relationship between the elements in the web of significance. The findings of this paper, in fact, suggest that, as values have more explanatory power than self-identification, then \( \beta_1 > \beta_3 \) and \( \beta_2 > \beta_3 \).

Cautious and well-crafted models would have to be built for this: as other studies have shown, there is an interactive effect between postmaterialist values and self-identification when predicting for protest. The explicit form of the function for protest could be more complex, due to this relationship between the x’s.

Something noticeable in the analysis of this study is that every form of political participation displayed a different relationship with the explanatory variables. This suggests that further studies would benefit from considering each form of unconventional political participation as unique, with different explanatory variables. Therefore, these forms of political participation should not be studied as just one group, as they commonly are: there’s a plethora of papers that consider actions as signing a petition, boycotting products or recycling as fundamentally the same as taking part in a demonstration.

Perhaps the most interesting findings regarding the typology of participation is the administrative procedure type. Little has been written about citizen’s use of judicial channels to support and hinder legislation and policy. Considering how fundamental the politicization of the judiciary by
elites has become in Latin America, for example to lengthen presidential term limits, it becomes of substantial importance to explore the equivalent mechanisms available to the citizenry, especially as it was the one type of participation with contradictory findings in model A.

An important challenge that the investigation faced was that the questionnaire was created with a very different topic in mind, and as such the importance that it gave to questions regarding ideology and unconventional participation was limited. Because of this, any possible statistical approach was ultimately doomed to yield a very low goodness of fit. Further studies into these topics in Costa Rica would benefit from drawing inspiration from questionnaires more clearly focused on values and attitudes, like the World Values Survey.

It is important, however, to mention that the battery used in this investigation was a valiant first effort to measure ideology in a more detailed manner that it had ever been previously done in Costa Rica. No other study was found that tried to do so beyond self-identification, the problems of which have already been discussed at length.

Even Lapop only includes four questions that could be considered related to ideology: self-identification, questions on whether the State should own the main industries of the country, if it should implement policy to decrease inequality and one whether democracy is superior to other governmental regimes. All those questions have equivalents in the Cuarta Encuesta.

Finally, a question arises on whether the particularities noticed in this case (lack of ideological consistency in the population, characteristics of those who engage in political participation) are exclusively Costa Rican or if they can be found in other Latin-American countries as well, or in other regions. Comparative studies (using, of course, similar questionnaires) would shed a light on this, and so could Sartori’s categorization of belief systems, particularly with regards to the internal consistency and the emotional dimension of the system.
References


Alfaro, R. et al. (2012). *Respuestas ciudadanas ante el malestar con la política: salida, voz y lealtad*. San José: Editorial UCR.


Appendix

Figure A1.
Percentage of affirmative answers in favor of State intervention to the questions in battery E, Costa Rica, 2014

<table>
<thead>
<tr>
<th>Question</th>
<th>Percentage of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow the use of marihuana</td>
<td>10%</td>
</tr>
<tr>
<td>Legalize same-sex partnerships</td>
<td>20%</td>
</tr>
<tr>
<td>Own the main industries</td>
<td>30%</td>
</tr>
<tr>
<td>Allow in-vitro fertilization</td>
<td>40%</td>
</tr>
<tr>
<td>Limit foreigners entering the country</td>
<td>50%</td>
</tr>
<tr>
<td>Regulate media and the internet</td>
<td>60%</td>
</tr>
<tr>
<td>Keep Catholicism as State religion</td>
<td>70%</td>
</tr>
<tr>
<td>Guarantee workers can join an union</td>
<td>80%</td>
</tr>
<tr>
<td>Regulate private businesses</td>
<td>90%</td>
</tr>
<tr>
<td>Limit foreign products</td>
<td>100%</td>
</tr>
<tr>
<td>Increase jail sentences</td>
<td></td>
</tr>
<tr>
<td>Decrease the gap between the rich &amp; poor</td>
<td></td>
</tr>
<tr>
<td>Limit companies that damage the environment</td>
<td></td>
</tr>
<tr>
<td>Ensure free access to health/education</td>
<td></td>
</tr>
</tbody>
</table>

Table A1.
Control variables for model B

<table>
<thead>
<tr>
<th>Variable</th>
<th>Question (when given)</th>
<th>Included in model B as the following dummies (when the variable is categorical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational</td>
<td>“What was the last year of studies you have completed?”</td>
<td>Elementary high school, high school, university.</td>
</tr>
<tr>
<td>level</td>
<td></td>
<td>Unemployed, public sector employee, private sector employee, owner, unknown sector</td>
</tr>
<tr>
<td>Occupation</td>
<td>“In your work, you are:”</td>
<td></td>
</tr>
</tbody>
</table>
“Would you say that the total salary or income that your family receives monthly is enough or not enough to survive?” This is a four-point continuous scale, the possible answers are:

Income

0 - NA
1 - Not enough, we have great difficulties
2 - Not enough, we have difficulties
3 - It is barely enough, without great difficulties
4 - It is enough, we can save

“Have you always supported that party?”
This is a yes-no questions, a previous one asked if the respondent currently supported a party.

Party loyalty

Questions A21 to A28 ask if the respondent has participated in a voluntary association in the last 5 years. Based on these questions, a voluntary association variable was created. Voluntary associations asked about: Local associations, unions, professional associations, political parties, PTAs, religious groups, solidarista13 association, groups in favor of human rights and environmental protection.

Voluntary association

“Using the card again, where 5 means a lot and 1 means nothing, how much would you say that you are interested in politics?”

Questions A1 through A8 are used to create a simple sum scale. Each of these questions was answered through a five-points scale. NAs were recorded as 0, since there are very few of them and they show a lack of interest in civic participation. The questions used are: “How important it is for you to:

Interest in politics

A1 - Actively participate in voluntary organizations
A2 - Keep informed on what the Government does
A3 - Voluntarily collaborate on electoral processes
A4 - Always obey the law
A5 - Actively participate in politics
A6 - Vote in elections
A7 - Respect people that think differently
A8 - Pay taxes

Civic values

13 Solidarista associations are a form of unions in Costa Rica and other countries that encourage both workers and business owners to take part in them. The underlying logic is that of class collaboration instead of class conflict.
### Table A2.
Pearson's correlations matrix and significance values for metric variables

<table>
<thead>
<tr>
<th></th>
<th>Materialist values</th>
<th>Postmaterialist values</th>
<th>Self-Identification</th>
<th>Age</th>
<th>Income</th>
<th>Civic values</th>
<th>Interest in politics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materialist</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postmaterialist</td>
<td>0,16</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>values</td>
<td>0,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Identification</td>
<td>0,00</td>
<td>-0,18</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0,01</td>
<td>0,23</td>
<td>-0,21</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>-0,12</td>
<td>-0,14</td>
<td>0,02</td>
<td>-0,09</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic values</td>
<td>0,13</td>
<td>0,02</td>
<td>-0,17</td>
<td>0,00</td>
<td>0,06</td>
<td>0,00</td>
<td></td>
</tr>
<tr>
<td>Interest in</td>
<td>0,05</td>
<td>-0,02</td>
<td>-0,127</td>
<td>-0,05</td>
<td>-0,02</td>
<td>0,39</td>
<td></td>
</tr>
<tr>
<td>politics</td>
<td>0,034</td>
<td>0,552</td>
<td>0,000</td>
<td>0,066</td>
<td>0,405</td>
<td>0,000</td>
<td></td>
</tr>
</tbody>
</table>

### Table A3.
Chi-square test for categorical variables

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Educational level</th>
<th>Ocupation</th>
<th>Party loyalty</th>
<th>Voluntary association</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education level</td>
<td>0,03</td>
<td>0,458</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ocupation</td>
<td>0,49</td>
<td>0,24</td>
<td>0,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Party loyalty</td>
<td>0,01</td>
<td>0,08</td>
<td>0,07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary</td>
<td>0,586</td>
<td>0,012</td>
<td>0,132</td>
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Table A4.
Eta coefficient test for categorical and metric variables

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