Assessing the role of voters' political information in electoral decisions: bringing new evidence using simulation methods

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Abstract

The purpose of this paper is to investigate the relationship between political information and voters' capacity to make good/correct electoral decisions as understood by proximity theories. More precisely, the question is: does information have an effect on the capacity of voters to choose the candidate closest to them? The data used in the analysis comes from the post-electoral American National Election Survey. Analyzing the effects of information across different models by using a statistical simulation method which improves on similar methods by Bartels (1996), Toka (2008) and Toka and Popescu (2008), I will show that information has at best a small effect on the capacity of individuals to make correct electoral decisions, and that indeed simulating an increase in the level of political information will not increase the proportion of respondents choosing the right candidate.

Furthermore investigating how the difference between more and less sophisticated voters evolves in time, I clearly show that an increased disparity in information, as hypothesized by the knowledge gap, does not influence the difference in proximity between the two group. Thus using cognitive mechanisms such as heuristics or emotions do work effectively, as they compensate for an increasing disparity in information.

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Chapter 1-Introduction

In the field of voting behavior, substantial attention has been paid to the relation between information and the capacity of individuals to make *good* political or electoral decisions. More precisely, the crucial question is whether more informed voters are indeed better suited for choosing the right candidates/party or, on the contrary, information is not that important in the electoral decision-making processes (Bartels 1996; Delli Carpini and Keeter 1996; Downs 1957; Lupia 1994; Moore 1987; Page and Shapiro 1992; Popkin 1994; Zaller 1991, 1992, 2004; Sekhon 2004). The purpose of this paper is to further investigate the relationship between political information and what I will call *good* political decisions. More exactly, I intend to show that voters are capable of making decisions that are in their best interests and in accordance with their evaluation of the world, even if they do not have a substantial amount of political information. In other words, my purpose is to demonstrate that political knowledge is not decisive when making electoral decisions. This will be done by analyzing how variance of the level of information in time influences the capacity of the voter to make good electoral decisions.

By good electoral decision I am referring to the capacity of individuals to choose the candidate that best represents their interests. Issue proximity theories consider that the candidate who best represents a voter's interest is the one who is closest to his preferences on issues/ideology that can be located along a single (left-right) dimension. Thus a voter who chooses the candidate closest to him (reflecting close issue proximity) makes a good electoral decision (Downs 1956; Tomz and Houweling 2008; Westholm 1997; Grofman 2004; Evans 2004; Lau and Redlawask 1997; Lau and Redlawask 2006).

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My initial hypothesis is that a *decrease in the level of information in time will not influence the capacity of individuals to make good decisions*, thus voters use some other mechanisms in order to compensate for the decrease in information and this can point to the existence and importance of heuristics and emotions. Practically, this would mean that the difference in terms of the quality of decisions between informed and uninformed voters is not as important as it might be initially thought (Delli Carpini and Keeter 1996; Downs 1957; Moore 1987; Strugis 2003; Zaller 1991, 1992, 2004;).

The initial idea came from observing a decrease in the quality of political information brought by the rise of a media which is more oriented towards entertainment, but which in my opinion did not affect the way in which people vote (during this period the electorate remained stable in the USA). Thus even if there is a substantial difference in the amount of information between people, I will argue that we can expect different groups (in terms of information) to use similar cognitions and emotions in making electoral decisions. By using these types of cognitions and emotions, low status voters can compensate for their lack of information and in the end make decisions which can be as rational as those of high status voters.

The importance of this paper lies in the fact that it will show that the quality of good electoral decision does not only rest in the quality of political information that voters have. All similar research that I am aware of (Bartels 1996; Page and Shapiro 1992; Popkin 1994; Sekhon 2004; Toka 2008) has looked strictly at the outcome of the decision, vote choice, while I will look at the process of decision making by analyzing the different positions of candidates/parties (issue proximity) and how this is connected to the individual's level of political information. Consequently I will bring substantial empirical evidence to a field that traditionally based its findings on laboratory experiments, which cannot fully reproduce reality. Also by bringing

evidence to support my hypothesis, I will have a solid base to challenge the normative imperative of the benefits of having informed voters (recently brought into attention by the supporters of deliberative democracy), as this does not affect the quality of decision and the quality of democracy, since uninformed voters can compensate for the lack of information using mental shortcuts.

Methodologically, I will bring further improvements to previous research (Althaus 1998; Bartels 1996; Toka 2008; Toka and Popescu 2008) by assessing the impact of information on an individual level and thus solving the problem of only showing minor aggregate shifts in the electorate due to the increasing levels of political information. Sturgis pointed out that the impact of information can be misinterpreted at the aggregate level due to self-canceling effects across respondents which tend to translate individual-level influences into rather modest effects at the aggregate level (Sturgis 2003). I will overcome this drawback by using a simple paired sample t test for analyzing the effects of a hypothetical increase of information instead of the bootstrap and jackknife method. Also, further evidence will be brought to show the effects of information at the individual level by analyzing how the variation across time of information influences issue proximity using a simple regression model.

Chapter 2-State of the Field

In recent years a great deal of effort has been made by the supporters of deliberative democracy and deliberative polling in order to try to show how a more politically informed and aware public will have a better, more educated judgment about important current issues. The basic method of deliberative polling involves selecting a national probability sample of the citizen voting age population and questioning them about some policy domain. The second steps consist of supplying the sample with briefing materials about the issue and encouraging them to think more seriously about the issue. In the final phase these people are brought together in a certain location in which they debate about the respective issues in panels under the supervision of political experts (some of which are televised). At the end of the debates, they are questioned using the same tools as in the beginning. During this process participants will theoretically become more informed due to three main factors. First, in the anticipation of the event (which will be televised) they start discussing the relevant issue with family and friends. Second, due to balanced briefing materials that they receive. Last but not least, through the discussion inside the panels and informally with other participants. The supporters of this normative view consider that after participating in these processes, citizens, being more informed, will be more like ideal citizens which may in turn affect policy preferences (Fishkin 1996; Fishkin 2003; Fishkin and Luskin 2005; Fishkin et. all 2000; Brady et. all 2003; Luskin 2003). Still one question remains; even if participants become more informed on certain issues, will this change their perception about parties and candidates and consequently change their capacity to make good decisions, and therefore change their vote choice? Answering this question, Sturgis indeed shows that after deliberation we can notice only a "small number of significant information effects and the low average effect sizes" (Sturgis 2003, 473), and probably what is much more important for this

paper, preferences towards major parties change by at most 3%, not acquiring statistical significance (Sturgis 2003, 463).

Continuing with the logic of a need for a more informed electorate, it has been generally recognized by researchers that information in general, and political information in particular, is related to specific political judgments because those more informed are more likely to possess the specific information that may contribute directly to particular political judgments. More exactly, they are able to make better political decisions as they are better able to identify their own interests and know who is best able to address their concerns (Bartels 1996: Delli Carpini and Keeter 1996 p. 223; Downs 1956 p. 79-80; Moore 1987, Sturgis 2003; Somin 2006). Similarly, it has been pointed out that most voters are politically ignorant (Popkin 1994; Delli Carpini and Keeter 1996; Zaller 1992). On the other hand studies show that if all citizens were informed this will only slightly change the outcome of the election (Bartels 1996 p. 217; Sekhon 2004 p. 34; Sturgis 2003 p. 472). But, even if Bartels is right, this could not be a direct result of rationality, as it was shown that collection of information is also influenced by interest (Genova and Greenberg 1979 pp. 81 -82), which could in turn influence vote choice. Still, even if at the aggregate level there is not much variation caused by information, Sturgis shows that around a quarter to a fifth of respondents switch sides on these issues when they posses greater levels of political knowledge (Sturgis 2003 p. 474). Thus, although less informed citizens are more susceptible to being manipulated by political advertisements against their own interests (Moore 1987) and less capable of identifying their interest (Delli Carpini and Keeter 1996 p. 223), this does not necessarily mean that they cannot compensate for lack of traditional information by using specific types of cognitions.

The last point is sustained by those who consider that using heuristics can compensate for the lack of information that most voters face in making political decisions and vote as though they were well informed. (Tvesky and Kaheneman 1974; Popkin 1994; Lupia 1994; Page and Shapiro, 1992; Lau and Redlwask 2001). These voters are even able to recognize the significance of new policy-relevant facts and adjust their policy preferences accordingly, but most of times they respond to new information using cognitive shortcuts or rules of thumb (Page and Shapiro 1992, p.17).

Furthermore, as Popkin argues that most people use low information rationality or 'gut' reasoning, as the type of practical thinking about politics and government in which people engage. More exactly, most people use information shortcuts and rules of thumbs when they evaluate and choose candidates, a process known as heuristics (Popkin 1994). A common list of heuristics includes: party affiliation, ideology, endorsement, candidate appearance, representativeness, the drunkard's search, framing, crystallization (Popkin 1994; Lau and Redlwask 2001). All these are useful tool for citizens who only have limited knowledge of basic facts about politics and government, especially in evaluating and choosing candidates, and it can even be a substitute for information. Also, he states that even educated people rely on similar tools when making their choice: they use shortcuts and calculation aids in assessing information and finally assemble them into scenarios; they process information in the same way (Popkin 1994). An important advantage of voters who use information shortcuts is that it reduces the costs of information acquisition and may lead voters to think that the acquisition of "encyclopedic" information is not a worthwhile activity (Lupia 1994, p. 63).

Zaller supports the theoretical claims by brining evidence that poorly informed voters still have the capacities to reject candidates who go against their interests, e.g. incumbents who

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preside over recession, and candidates who support extreme policies; consequently, they know enough to defend their own interest (Zaller 2004). Also, using an experimental research design, Lau and Redlwask conclude that 75% of voters vote correctly even if they do not have access to a full set of information about the candidates (Lau and Redlwask 1997). Last but not least, Marcus shows the important role of what we generally recall as *emotion* in politics. He describes how the three emotional systems: the fight/flight system, the disposition system and especially the surveillance system, help us in making political decisions without consciously using political information or even without using such information at all (Marcus 2002).

To sum up, everyone uses some kind of problem solving strategies (often automatically or unconsciously) which serve to "keep the information processing demands on the task within bounds" (Lau and Redlwask 2001 p. 952 apud Abelson and Levi 1985 p. 225), thus reducing the amount of political information involved in making electoral decisions does not necessarily mean that decision making capabilities suffer. On the contrary, using these strategies can even improve the capability of voters to make better electoral decisions (Lau and Redlwask 2001 p. 952, Lupia 1994). In this light the opinions and efforts of those who argued for a more informed voters, closer to the ideal citizens, lose in importance.

Still, there is not sufficient evidence to point out that these types of cognitions are actually used by voters in elections, thus my purpose will be to show that although the level of information decreased, people still make good electoral decisions. This will imply that citizens rely more on mental shortcuts as an effective tool for making political decisions (Tversky and Kaheneman 1974; Popkin 1994; Page and Shapiro, 1992), or even by what we generally understand as emotions (Marcus 2002).

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Chapter 3-Building the Theory

The first step is to show that the level of political information has evolved in time. Evidence to support this statement can be found in Dell Carpini's and Keeter's work in the decreasing quality of the media and of education, as education is a strong predictor for political information (Tichenor et al., 1970 pp. 160–161; Popkin 1994 p.34). The supporters of this claim argue that the quality of education, especially secondary education, has decreased since the 40's. Also, they pointed out that the rise of electronic media in general and of television in particular lead to decay rather than progress when it comes to the level of relevant political information. Now citizens are inundated by irrelevant information that distracts their attention from relevant political information. Also the seductive nature of television (especially entertainment) drives them away from the printed media (the traditional source of information for high status citizens), which is indicated by a decreasing number of owners of such media, thus reducing the choice of people. (Delli Carpini and Keeter 1996, pp.110-114). This decrease in printed news is not compensated by TV news. On the contrary, network news viewership has declined from roughly 75 percent of television-viewing and the quality of news coverage has decreased. (Gilens et. al. pp. 3-5).

But this is not sufficient evidence. Rough figures show exactly the opposite: the level of education in the 1990's in the US is considerably higher than in the 1940's, the yeas of education have increased from 8.6 years to 12.7 years, high school dropout rates have diminished and the percentage of people with college experience rose from 8.6% to 43% (Delli Carpini and Keeter 1996, p, 107). Encouraging signs also come from cable news programs (e.g. CNN) and the internet, which enrich the information environment (Gilens et. al. pp. 3-4, Delli Carpini and Keeter 1996, p.112). All these suggest that the aggregate level on information has increased over

time. Seemingly, present day generations are better educated people who have easier access to information and thus it is normal to assume that they are better informed.

Taking into consideration this contradicting evidence, it is perfectly reasonable to believe that regardless of important societal changes, there is no significant change in the aggregate level of political information, as Delli Carpini and Keetert conclude the : "aggregate levels of political knowledge have remained remarkably stable over the past half century" (Delli Carpini and Keeter 1996, p.161).

This last statement contradicts my initial hypothesis; thus if little variation is to be expected in the level of political information, the lack of variation in the capacity to make good electoral decisions will not come as a surprise; if the level of information is constant in time, I will not be able to make any inferences about how the capacity to make good decisions evolved in time.

 Still, when analyzing the data from the American National Election Studies (ANES), Delli and Keetter point out another difference that increased in time ; as skills and technology are not evenly distributed through the public, the result "is a population increasingly divided into information rich and information poor" (Delli Carpini and Keeter 1996, p. 114). In other words today people with a high socioeconomic status have the skills and benefit from the infusion of knowledge brought by advances in technology and diversification of media sources, mainly due to education and increased income, in their 'search' for political information. While low status voters only find in the new media a new source for entertainment and do not benefit from the information potential of the new media. These claims are consistent with the knowledge gap hypothesis developed by Tichenor, Donohue and Olien in 1970.

As the infusion of mass media information into a social system increases, segments of the population with higher socioeconomic status tend to acquire this information at a faster rate than the lower status segments, so that the gap in knowledge between these segments tends to increase rather than decrease. (Tichenor et al., 1970, pp. 159–160).

When the three authors speak of socioeconomic groups they refer to education level as being a valid indicator for socioeconomic status in predicting knowledge acquirement (Tichenor et al., 1970, pp. 160–161), a fact also evidenced by others (Popkin 1994; Zaller 1992; Delli Carpini and Keeter 1996). More exactly, highly educated people have a better chance of being exposed to information and thus they have a greater chance to acquire general knowledge in comparison with the lower educated. But, when making this distinction, we do not have to assume that lower status voters (the less educated) are completely uninformed, but only that the gap is greater between higher status people and others (Tichenor et al., 1970).

Under these conditions, it is perfectly plausible that the acquisition of knowledge will proceed faster among better educated people than among the less educated (Tichenor et al., 1970, p. 162). Considering today's diversification of media sources, we can expect that the knowledge gap is increasing between the two categories of people. And if such a trend exists for common knowledge we can expect a similar, if not identical trend, for the level of political knowledge, which basically has the same characteristics. In other words, we can expect that people with a high socioeconomic status benefit from the infusion of knowledge brought by advances in technology and diversification of media sources, which increase the difference in information between them and low status voters (Holbrook 2002; Prior 2004).

As empirical evidence of the increasing knowledge gap (based on education) across Presidential elections was already found (Holbrook 2002), we can expect a considerable

difference in the capacity to identify the candidate that best serves their interest of low status voters (the uneducated that lack information) and high status voters (the educated with high level of information). Furthermore, if the knowledge gap has widened over time, this difference should further increase. So even if the aggregate level of information remained the same, we can expect the variation in terms of information between the two groups. But if heuristics or emotions work, I expect that this difference in information between the two groups will not be translated in a difference in the capacity to vote for the candidate closer to them and thus make good electoral decisions. This leads me to my first hypothesis:

> *H1: The difference in terms of information between people with different levels of information has little or no effect on the issue proximity of voters and thus on their capacity to make good political decisions.*

My second hypothesis refers to how the widening gap in information between high status voters and low status voters will affect the difference in decision making between the two groups. I expect that although the difference in information between them has increased, this did not influence the capacity to make good decisions between the two groups.

> *H2: The increased disparity in the level of political information between these groups will not lead to an increased difference in the capacity to vote for the candidate closest to them, thus not affecting their ability to make good political decisions.*

If in testing these two hypotheses I can find evidence which shows that the capacity to make good decisions (choosing the candidate which is closest to you) varies independent of information, this will show that information is a poor predictor for explaining voter's decisions (contrary to prior belief), and thus I can assume that the lack of information can be efficiently compensated by the use of shortcuts and emotion.

Chapter 4-Data and Measurements

The aim of this paper is to evaluate the effects of information on the capacity of individuals to make good political decisions in accordance to proximity theories, meaning that they can choose the candidate that best represents their interest (the candidate closest to them). Hence, the first step will be to test if information has a statistically significant influence on issue proximity (the distance between the position of individual and the position of the candidate they voted for on a certain issue), a small difference indicating that a voter did make a good decision. Once this is done, different models will be compared to see if the simulated changes in the level of information increase the capacity to make good decisions. Then, the same data will be used to simulate the impact of hypothetical changes in information on the aggregate distribution of issue proximity in the given population. The final step will be to assess how the relation between information and issue proximity evolves in time. As stated above, although the difference between certain groups in terms of information increases, I do not expect a change in the capacity to make good decisions between those groups.

The data used in this paper comes from the American National Election Study (NES) post electoral studies, conducted in 1980, 1984, 1992, 1996, 2000 and 2004, all years when presidential elections took place. Besides the fact that the NES provides data where the voter's decision making capacity can be studied (besides experiments), presidential elections represent the time where the infusion of information is maximum, thus the variation in terms of information between low status voters and high status is maximum, which makes it the best time to study the knowledge gap (Moore 1987). Also, the presidential elections best fulfill the assumptions of the standard proximity model (Grofman 2004, 26), and for the purposes of the present work, we can assume a single issue electoral space.

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Because I am interested to see how information varies among different groups of voters, I selected as independent variables only relevant socioeconomic variables. Also, as Toka and Popesccu pointed out, these variables need to be exogenous of the dependent variables in order not to be concerned with the problem of reversed or reciprocal causality between variables in the opposite part of the equation. For this reason, attitudinal variables (that could possibly improve the model) were excluded from the analysis (Toka and Popescu 2008, p.71). Thus, the variables concerning socio-cultural traits that could have an effect on the capacity of making good decisions were included in the analysis. The list of 'usual suspects' used in similar analyses included: age, age square, education, gender, race, household income, marital status, church attendance, region, home ownership (Luskin 1990; Toka 2008; Holbrook 2002; Bartels 1996; Toka and Popescu 2008). A full description of these variables can be found in Appendix 1.

For the main independent variable, political information, I use a five-level summary evaluation of each respondent's level of information (ranging from very high to very low) made by the interviewer at the end of the interview, which was shown to be a reliable measure of information. This indicator of information was shown to be "the single most effective information item" in the ANES, as it is highly correlative with relevant criterion variables, having a coefficient of statistical reliability of 0.78 (more complex items of information are only slightly more reliable having estimating reliabilities between 0.8 and 0.85) (Bartels 1996 p. 203 apud Zaller 1985 p.5). The limitation of using this score comes from the fact that it can be argued that it is not completely independent from the dependent variable, as interviewers can take into consideration issue proximity when they make the rating. Still, this is not the case in this study, as the correlation between information and the operationalizations of issue proximity, although statistically significant, do not exceed 0.1. Also, there are several items in the ANES which

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interviewers might consider, to lack evidence that points to the fact that they use a specific item and not an overall impression. Last but not least, this item brings an important advantage as it offers the possibility of comparing information across elections unlike more complex items which are based on different sets of available information in different years.

Similar to Bartels, I assign numerical scores 0.95, 0.8, 0.5, 0.2 and 0.05, respectively to the "very high", "fairly high", "average", "fairly low" and "very low" information ratings (Bartels 1996 p.203). This recoding reflects reality as it points out that there is no such thing as perfectly informed or completely uninformed voters (as 0 and 1 are missing from the recoding). Also, it makes possible simulated increase in the information, allowing comparison even between a hypothetical perfectly informed voter and the actual respondents or even with hypothetical totally uninformed voters.

In order to test the two hypotheses presented above, two separate conceptions about proximity will be taken into consideration. In the first situation, three indexes for good political decision will be developed as dependent variables, all reflecting the perceived difference in issue proximity (the difference between the position of the voter and the position of the candidate he/she voted for). In all the three cases the perception of the voter is a crucial factor for assessing issue proximity. As I consider that people make good political decisions when they choose the candidate/party closer to them, independent of their capacity to correctly identify the candidate's position (basically, the respondents for which issue proximity is zero or close to zero). An explanation to why these people make better decisions is given by Alvarez. He points out that in the cases where uncertainty about the candidate's issue position of a candidate is high (and this happens where the perceived issue position increases), the chances to vote for that candidate decrease (Alvarez 2004).

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This view reflects the traditional proximity voting theories which measure the issue positions of candidates by asking voters where they think candidates stand (Tomz and Houweling 2008, p. 305; Westholm 1997, pp.870-871), reflecting the perceived utility function of the vote (Downs 1957; Grofman 2004). Although this score is not the absolute determinant for vote choice, Tomz and Houweling showed that proximity voting is the most common type of voting used by approximately 60% of the population (Tomz and Houweling 2008). Also, this score has another important advantage as it is built independent of information.

Proximity theories, because of their emphasis on perceptions and not on an objective reality, reflect a model of electoral decisions which is similar to what Lau and Redlawsk call the confirmatory decision making model (2006, 9-12), also described as wishful thinking model (Granberg and Holemberg, 1988). Although this model (best illustrated by the Michigan approach) is one of the most influential in political science and it guides the data collection done by ANES (Lau and Redlawsk 2006, 10), it is still heavily criticized.

It can be argued that this view reflects a conceptualization of good electoral which is far from the actual reality and is independent from information, as both highly informed and poorly informed voter will have a close proximity, but for very different reasons. In the case of highly informed voters, this will happen because they have the capacity to actually know what candidate is best able to solve their demands. The case of uninformed voters is very different; as they have a limited amount of knowledge about politics, they cannot correctly place a candidate. Thus some might argue that they only report a candidate as being close to them in order to justify their choice for the respective candidate because of the need to maintain their cognitive balance (Granberg and Holmberg 1988; Lau and Redlawsk 2006).

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Another objection (and probably the most problematic part of this operationalization in regards to this paper) is related to the link between information and the perceived proximity. As said above, even people who have low degrees of political sophistication can perceive candidates as being close to them. Additionally, some argue that information gathering according to this view is passive. Also, as gathering relevant information is mainly based on media sources, it is highly unreliable. It can be even be biased in favor of the preferred candidate, as they live in a dream world which they need to reinforce by rationalizing rather than by being rational (Lau and Redlawsk 2006, 8-11; Granberg and Holmberg 198, 138). In this light, the fact that a high level of political information is not important (if the wishful thinking is taken into consideration), would not come as a surprise, as most people who vote according to this model are poorly informed although they are highly involved (Granberg and Holmberg 1988, 148).

Also, another problem regarding this operationalization could be the one of results biased due to correlated error. More exactly, people answer questions regarding their position or that of the candidates (the case of the ANES) in close succession, thus the responses might not be independent of one another (Granberg and Holmberg 1988, 39 apud Judd et al. 1983).

Still, I do not consider these major drawbacks for this paper, as I do not analyze rationality but the ability of people to vote for the candidate which they think is closer to them (the case where uncertainty is low), as from their point of view a good decision will imply choosing the candidate which they *perceive* as closer not the one who is *actually* closer.

Furthermore, the fact that information according to this model does not have any effect on vote choice is unrealistic. As Tomz and Houweling show, 60% of the population use issue proximity (which takes into account perception), and it is unrealistic to expect that all these individuals have low levels of political information (as the measure of information I use is

normally distributed in the sample). Thus, even if we assume that most people use the confirmatory decision making model (wishful thinking model) to choose a candidate, still a good proportion of them are well informed and under these circumstance we can expect an information effect (even if it is a small one).

Also, several studies show that voter images even if not perfectly accurate or unanimous, are clearly related to what can realistically be considered the objectively true locations (Granberg and Holmberg 1988 cap.3; Westholm 1997, p. 870 apud Powell 1989; Listhaug, Macdonald, and Rabinowitz 1994). All in all, perception rather than real distance, is important for vote choice (as self interest cannot be judged objectively); hence analyzing perception allows me to accurately evaluate the quality of the decisions which determine vote choice.

The first dependent variable will be a continuous variable, computed as a difference between voters' positioning on the liberal conservative scale and where they see the candidate for which they voted on this scale (both on a seven point scale). Thus the variable will have values between 0 (reflecting small issue proximity and thus a good decision) and 6 (reflecting a high difference in issue proximity and thus a bad decision). For an easier interpretation, I recoded the variables: 1 meaning a large difference in issue proximity, and 7 meaning a small difference in issue proximity. The main disadvantage of this variable is that one can feel closer on the liberal conservative scale but on a certain issue which is important for him, he will have different opinions than the particular candidate.

The second dependent variable will also be a continuous variable, but it will indicate more accurately a good decision as it will reflect the decision to choose the candidate that better serves the voter's interest. For this, it will be computed as a difference between voters' positioning on what they consider their most important issues and where they see the candidate

for which they voted on that particular issue (both on a seven point scale). Like the previous variable, these variables will also be assigned a value between 0 and 6, which, for an easier interpretation, I recoded on a 7 point scale reversing the meanings of the extremes. The problem with this operationalization is that in the ANES there are no scores for agricultural, economic, government function, labor and natural resources issues (thus people for which economy was the most important issue were dropped from the sample) and also for some issues the variables that reflect that issue are not specific enough. Thus positioning on 4 broad issues (both of the voter and of the candidate) are available. According to the American Election Studies codebook these are reflected by the positioning on the following 7 point scales: defense spending and relation with the USSR for the issue relating to foreign affairs and national defense (in the case values were present for both issues a mean was computed between the two); women's rights for public order[1]; aid to blacks for racial issues; and government services spending for welfare issues.

It is important to notice that the correlation between the two variables is weak (0.2 significant at p<0.01), thus although they both essentially refer to issue proximity they do not measure the same thing. Assuming a single issue electoral space, the second variable is more appropriate to measure a good decision as it would be expected to vote for the candidate that has the same view on that issue and not the one who is ideologically close to him. Still, this is not necessarily the case, and in a multiple issue space where votes could be made based on ideological attachments, as in the case of Europe (Lipset and Rokkan 1967; Enyedi 2008). Also, as pointed out above, the way in which issue proximity was measured in the second case is not perfect. For these reasons I cannot evaluate which of these two variables better reflects a good

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[1] Even if classifying women rights as a matter of public order may seem controversial the ANES cumulative codebook identifies women's social rights as a matter of public order (see VCF0875 ANES cumulative codebook)

political decision. Hence, I will carry the analysis for both-- referring from now on to the first as ideological proximity and to the second one as issue proximity1 (after recoding both take values between 7 ,good electoral decision as issue proximity is small, and 1, bad electoral decision as issue proximity is high).

The third score that will be used as a dependent variable is a dichotomous variable. This is computed from the response to the question: "which party would best handle your most important issue, thus the constructed variables?" It will take the value of 1 if the respondent voted for the candidate that represents the party that he perceives as best able to handle his most important issue, 0 if you voted for the other candidate. The main advantage of this variable is that it identifies the specific issues for every campaign and not broad issues. From now on this variable will be referred to as issue proximity2. In this case, if the respondent answers that none of the parties is best suited to handle the respective issue a dependent variable cannot be computed, as it is unclear if in this case he should vote for the independent or actually not go to vote. Still, it needs to be remembered that this operationalization represents only a proxy, as respondents are not asked directly about the candidates but rather about the parties of the candidate. Thus it is possible that a difference can emerge between the opinions of the respondent about the party and about the candidate.

As mentioned above, analyzing issue proximity using perceptions might raise objections, as it can be argued that perceptions are far from the actual reality and that in fact perceiver proximity only reflects a phenomenon of cognitive balance. Thus, perceived proximity does not actually measure the capacity of individuals to make good electoral decisions, and could actually be independent of the political information level (Granberg and Holmberg 1988; Lau and Redlawsk 2006). Also, it can be argued that this measurement introduces additional endogenity

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(Tomz and Houweling 2008, p. 305) and entails a risk of reverse causality (Westholm 1997, p. 870; Granberg and Holmberg 1988, 39).

For these reasons, a separate operationalization will also be taken into consideration. Thus in a second situation, which will be analyzed in chapter 6, the actual position of the candidate (and not the perceived one) will be used to measure proximity. In this case proximity, and implicitly the capacity to make good decisions, will reflect the ability of voters to correctly place a candidate, but also the ability to vote for the one that best represents their interests.

Unlike the previous operationalization (which uses perception), this one is much more normative. It has its origins in the classical rational decision making models and assumes that people are aware of, and take into consideration all their alternatives, and choose the candidates who best represent these interests. In this light is it clear that political information should matter, as more informed people are clearly more aware of their alternatives and have the capacity to identify the alternative that is best for their own interest and thus there are those who are expected to make the best electoral decision (Delli Carpini and Keeter 1996; Lau and Redlawsk 1997; Lau and Redlawsk 2006, 8-11; Downs 1957; Dahl 1989).

In order to compute the actual position of candidate an 'expert survey' from the sample will be used. In this case, the mean placement of respondents of the most educated people from the sample (those at least having a BA diploma), which did not vote or voted for an independent, will be used in order to compute the position of candidates, thus being similar to a panel of experts (Zaller 2004, 174: Lau and Redlawsk 2006, 85). Taking into consideration only the nonvoters and the independents will ensure that the actual position will not be influenced by a possible partisanship bias in evaluating the position of candidates. Also, using only the most educated people from the sample will ensure that the position will reflect that of knowledgeable

citizens, thus being close to an expert survey and thus overcoming the problem of "slender reed" encountered when using the mean evaluation of the electorate in order to find the real position of candidate (Granberg and Holmberg 1988, 117). As a result, the position of candidates used in this paper will be the best possible operationalization excepting an expert survey.

As in the case of perceived proximity, several indexes will be computed for the actual proximity. The first index will be similar to ideological proximity (described above), with the important difference that it will take into consideration the actual ideological position of a candidate. Thus it will be computed as a difference between voters' positioning on the liberal conservative scale and the actual position of the candidate for which they voted on this scale (both on a seven point scale). Still reflecting ideological proximity, this index will have the same disadvantages as the one mentioned for the perceived ideological proximity.

The second index variable will be similar to issue proximity1, indicating more accurately a good decision as it will reflect the decision to choose the candidate that better serves the voter's interest. It will be computed as a difference between voters' positioning on what they consider their most important issues and where the candidate for which they voted is positioned on that particular issue. As this index is similar to issue proximity1 it has the same drawbacks related to the impossibility of computing the distance for all relevant issues (see above description of issue proximity1).

In this case, also, there is no statistical significance between the two variables, but since I cannot clearly determine if people vote based on ideological proximity or issue proximity, both operationalizations will be used in the present analysis.

Both variables described above will have initial values between 0 (reflecting small issue proximity and thus a good decision) and 6 (reflecting a high difference in issue proximity and

thus a bad decision). For an easier interpretation I recoded the variables, 1 meaning a large difference in issue proximity, and 7 meaning a small difference in issue proximity.

Even if it seems that this last oprationalization is more appropriate than using the perceived issue proximity, both from a normative perception and because it gives more weight to the role of political influence, still this model also has serious drawbacks. First of all, the rational decision model has as its assumption the fact that people try to vote correctly and put a high amount of effort in becoming informed (Lau and Redlawsk 2006, 75). This is clearly an unrealistic assumption, as even Lau and Redwalsk admit, but the most conclusive evidence for the fact that this is unrealistic is that most people do not use this model in voting, instead they base their choices on perceived ideological proximity (Tomz and Houweling 2008). Furthermore, even the basic perceptions of the Downsian model are highly controversial, as most actions can be classified as rational, considering the fact that all decisions are based and made on perceived cost and benefits specific to the moment in which the decisions are made and not on an objective evaluation of these costs and benefits (Simion 1985).In this context, there is no difference between perceived proximity and objective proximity.

As a conclusion, both operationalizations of good electoral decisions based on issue proximity (the first one based on perceived issue proximity and the second one based on the actual proximity) have advantages and drawbacks. Using perceived issue proximity offers a more realistic depiction of the actual mechanisms that people employ when making a decision, but at the same time this mechanism could be argued to be independent of the actual level of information. The rational decision model based on an objective issue proximity emphasizes the possible role that information should have in making an electoral decision, but assumes a mechanism for making decisions that is considered naïve and unrealistic. For these reasons, the

effect of information on both perceived and objective issue proximity (reflecting two different perceptions about what is a good electoral decision) will be analyzed in this paper, with the mention that I expect H1 and H2 are to be corroborated in both cases.

Before proceeding to the data analysis, a last remark must be made. For the current analysis, only respondents who voted for the candidates of a major party were taken into consideration, as the positioning on certain issues was not available for independent candidates.

Finally, respondents who were part of the panel were kept in the sample. Even if being part of the panel creates an information bias, as these individuals will theoretically be more informed, knowing that they will be interviewed it is more likely that they will be more attentive to information (Bartels 2000; Bartels 2006, 154). This does not represent a problem in this case; on the contrary it will further emphasize how knowledge acquisition evolves among certain group, bringing more evidence for the knowledge gap. While the evaluation of candidate ratings, ideological placement and vote choice is not influenced by the panel effect (Bartels 2006).

Chapter 5-Information Effects on Perceived Proximity

Electoral decisions based on perceived issue proximity are the most common mechanisms people use in elections. Although it can be argued that perceptions are independent of the level of political information of voters, I will show that indeed information has a small but significant effect. But at the same time, a hypothetical increase of political information will not have a determinant influence on issue proximity, thus bringing evidence to support H1 and H2.

5.1 Evaluating the Effects of Political Information

The first step of the analysis is to evaluate the effect of information on good political decisions (where small issue proximity between the respondent and the candidate they voted for means that the respondent made a good decision). The simplest analysis that can be done in this case is to regress information on the three dependent variables which all theoretically measure good political decisions The analysis also includes party ID strength, as party ID is one of the most used heuristic, hence using this variable could show if heuristic do a better job in predicting issue proximity than information (see Table 5.1.1).

In the case of all three operationalizations, the strength of party ID reaches statistical significance being the strongest predictor for proximity. Even though all models lack predictive power, it can be said that even a simple heuristic such as party ID does a better job in predicting the capacity of making good political decisions then information (which acquire statistical significance in only one case), confirming that heuristic are an effective tool that can compensate for the lack of information when making electoral decisions. Still this finding needs to be analyzed with caution, as in this case causality is not clear, as close issue proximity could lead to strong party IDs (people who feel close to a party have stronger incentive to be militants) and not the opposite.

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Concerning information, the results presented in Table 5.1.1 show mixed effects depending on the way in which perceived proximity between the candidate and the voter was operationalized. Hence, information has a positive significant effect (an increase in information increase the score for proximity) only when a good political decision reflects the difference between where the respondent stands on a certain issue and where he thinks the candidate he

Table 5.1.1 Parameter estimates for good political decisions wishful thinking model[2]

	Ideological proximity	Issue proximity 1 (Continuous var.)	Issue proximity 2 (dichotomous var.)[3]
Information	.006	**.096*****	1.307
Party ID strength	.139***	**.107*****	1.338***
Year	-.002	-.025	.999
Age	.310***	.061	1.010
Age squared	-.320***	-.013	1.000
Male	.052***	.027	.874
Income	.041	.061	.988
Education	.035	.008	1.081
Church attendance	-.023	-.002	1.012
Black	-.016	-.035	.761
Region (South=1)	.000	.071**	1.188
Homeowner	.048**	.007	1.210
Married	-.017	-.012	1.172
Intercept			11.325
Adjusted R^2 [4]	.031	.026	.024
Model fit[5]	.000	.000	980.339
N	3323	1274	1831

***denotes p<0.01, **p<0.005, standardized coefficients reported for continuous variables

[2] For ideological distance and issue proximity 1 a linear regression will be used, while for issue proximity2 a logistic regression will be used.
[3] Exp(B) reported in order to compare strength of effects
[4] For ideological proximity 2 the pseudo R^2 will be reported.
[5] Significance of F test reported for ideological proximity and issue proximity 1, -2 log likelihood for issue proximity2.

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voted for stands on that issue. In this case information seems to have a strong effect. But even in this situation, the strength of party ID is a better predictor, showing once again that a simple heuristic such as party ID is more important than information when predicting the capacity to make good political decisions,

Also, when looking at the predictive power of all models we can see this model explains very little (a maximum of 2.6%) of the variation in issue proximity. This shows that models that use information lack the predictive power for good decisions, thus providing evidence to support H1, the fact that information has at best a small effect on the capacity to make good political decisions.

In the other two cases, information seems not to have a statistically significant effect on the issue proximity scores (even if the sign of the estimate indicates a positive relation). Still, the fact that the effect is not significant can be caused by type II error (accepting the null hypothesis when is should be rejected).

Thus a better method needs to be developed for all three cases in order to evaluate more accurately if indeed information has an influence on issue proximity. This will be done by comparing the model fit between the cases where information is present with the model where it is not present. The generic form of the model without information is shown in equation (1) and the model with information is shown in equation (2):

$Proximity^6=b0+b_1age+b_2agesqured+b_3income+b_4educaion+b_5black+$

$b_6homeowner+b_7married+b_8churchattendance+b_9gende+b_{10}region+b_{11}year^7$ (1)

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[6] For all the equation in the case of issue proximity2 a link function needs to be used as this is a dichotomous variable. The function used will be logarithm of the odds ratio for issue proximity2 being 1, more exactly the log of

$$\text{Proximity}=b_0+b_1X_1+ b_2 X_2+....+b_kX_k+b_{(k+1)}\text{Information} \qquad (2)$$

In this the last notation b0 represents the intercept and the independent variables besides information are denoted by X_1, X_2...... X_k and b_1, b_2.... B_k, their parameters.

Also, a model that allows the possibility of interaction between political information and all other explanatory variables will be created. This model allows information to vary across different social groups and hence it allows the possibility in the same social group to have a different capacity of making good electoral decisions, depending on their level of political information. In other words, it allows information to affect good political decisions differently in different social groups. (Bartels 1996, p. 205; Toka and Popescu 2008, p. 79). This form of this model is shown in the following equation:

$$\text{Proximity}^8=b_0+b_1X_1+b_2X_2+....+b_kX_k+b_{(k+1)}X_1\text{Information}+b_{(k+2)}X_2\text{Information}+...+b_{2k}X_k\text{Information}+b_{(2k+1)}\text{Information} \qquad (3.1)$$

For the present purpose (assessing information effect on the capacity to make good political decisions) these interactions are important because they allow information to influence the capacity of making good political decisions in the case social inequality, either directly or in interaction with social demographic variables (Toka and Popescu 2008, p. 79). Furthermore, in this case the fact that information does not have a direct significant effect can be due to its allowance of an indirect effect of information through these socio demographic variables.

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[7] For year will be a dummy variables will be used for each year expect the first year under study, 1980, which will be kept as the base line.

[8] In all cases above proximity refers to perceived issue proximity.

Since the three models are nested, the best way to compare the fit of the linear regression model is a simple comparison between the R squares of the models. In the case of issue proximity2, where we have dichotomous dependent variables, this can be done by comparing the deviance of fit, measured by -2 log*likelihood (small values meaning good fit), between the models. If this difference is statistically significant, a model provides a better fit then the other (Luke 2004, pp.34-35).

Table 5.1.2 Goodness-of-fit statistics, wishful thinking models

	Ideological distance	Issue proximity1	Issue proximity2
	(adjusted R^2 reported)	(adjusted R^2 reported)	-2 log likelihood reported
Fit of model (1)	.010	.011	985.035
Fit of model (2)	.010	.019	984.678
Fit of model (3.1)	.012	.027	968.954

The model fit of the three models presented in Table 5.1.2, mainly confirms H1, the fact that political information has no or little effect on the capacity to make good political decisions. When the good decisions are measured as the ideological difference between the candidate and the respondent, replacing equation (1) with equation (2) does not improve the explanatory power of the model (the adjusted R^2 remains the same) And, when equation (1) is replaced with equation (3.1) the explanatory power improves only slightly (with 0.02%).

The same conclusion can be drawn when issue proximity2 is used as an operationalization for good political decisions. In this case, there is also no improvement in the model fit, (1) with equation (2) or equation (3.1), it is insignificant (likelihood ratio=0457 against

a chi square distribution with 1 degree of freedom, no statistically significant (p=0.55) when substituting equation 1with equation 2, likelihood ratio=15.081 against a chi square distribution 14 degree of freedom not statistically significant (p=.88) when substituting equation 1 with equation 3).

For this reason, and also because the first analysis did not show a statistically significance of information, it can be stated that information has no effect on how respondents perceive the difference between their ideological position and the position of the candidate. As a conclusion, it can be said that information does not influence perceive ideological proximity and on issue proximity2.

The interesting findings are in the case of issue proximity1 (measured as the distance between where the voters stand on the most important measure and where they perceive the candidate they voted for on that issue). In this case, adding information (see equation 2) to the model or the interaction of information with the other variables (see equation 3.1) doubles the amount of variance in proximity explained by the first model (see equation 1); clearly showing that information has an effect on issue proximity. Therefore, in this case knowledge has a small, but clear, influence on the ability to make the correct electoral decision, seemingly confirming H1.

The difference between why information had influence on proximity, and thus on the capacity to make good electoral decision in the case of issue proximity1, and no influence in the other two cases, can be explained by two factors. First, both ideological proximity and issue proximity2 are imperfect operationalizations. As I already mentioned, in the case of ideological proximity a respondent can feel close, ideologically, to a candidate but can strongly disagree with him on an important issue, In this case, being informed will mean not voting for him. In the

case of issue proximity2, the voter can perceive an important difference between the party that is best able to handle his most important issue and the candidate of the respective party, thus, again, being informed will mean not voting for the respective candidate.

The second, and more plausible explanation in my opinion, is that the influence of information is canceled by the need for cognitive balance (the need to justify a decision which is independent of information) which is independent of any objective reality (Granberg and Holmberg 1988). This means that an even less informed voter will perceive the candidate as closer to them, not because this is the real case but rather because they need to justify their choice. This situation is much more likely to occur in the case of ideological proximity and issue proximity2, as in this case it is easier for the less sophisticated respondents to make a quick connection and 'figure out' what is the most appropriate answer, and thus easier to ensure their cognitive balance.

This is not the situation in the case of issue proximity1. Here, after they are asked to identify their most important issue, respondents are asked to place themselves and the candidates on multiple issue. Hence a good electoral choice (choosing the candidate that they perceived closest on the most important issue) is more difficult to make without any clear knowledge of the issues involved; meaning that only a more informed voter is capable of making good electoral decisions by correctly identifying the candidate perceived as closest to him on the most important issue. Also, in this case the risk of correlated error between the position of the voter and the perceived position of the candidates (Granberg and Holmberg 1988, 39 apud Judd et al. 1983) is reduced.

All in all, the results presented above confirm H1 (the fact that information has little or no effect on perceived proximity and thus on the capacity to make good electoral decisions) as in

two cases, ideological proximity and issue proximity2, information had no significant effect on perceived proximity and in the case of issue proximity1 the effects of information, all though statistically significant, were limited (a fact demonstrated by the limited predictive power of both equation 2 and 3.1).

The next interesting question would be to see how the ability to make the correct decisions will be improved if people would suddenly become more informed. If the effects of this hypothetical change in the political information level on the capacity to make good decisions were small, this will further evidence H2.

5.2 Simulation of an Increase of Information on Perceived Issue Proximity

From the results presented above, it is clear that political information influences the perception of issue proximity (although the influence is rather small). The next logical step is to see how, or if, issue proximity will change if the level of information increases. If H2 is correct, a hypothetical increase in information would have an insignificant or, at best, a small effect on issue proximity, as mechanism such as heuristics could be as efficient even in cases of smaller levels of information (Tversky and Kaheneman 1974; Popkin 1994; Page and Shapiro, 1992; Lau and Redlwask 2001).

The effects of political information on ideological proximity or issue proximity2 could not be clearly assessed either by looking at the statistical significance of the information presented in Table 5.1.1 nor from adding information to the model would clearly improve model fit (see Table 5.1.2). Hence, further assessing the effects of an increase in the information level on ideological proximity or on issue proximity2 will not be carried out, as I do not expect that this increase would produce considerable differences.

For assessing how exactly issue proximity will change in a hypothetical scenario of better informed voters, I will develop a simulation of the issue proximity for more informed voters and compare it to the distribution of issue proximity of less informed voters; similar models were used by Bartels, Althaus and Toka (Bartels1996, pp 205-207; Althaus 1998; Toka 2008, pp.36-37; Toka and Popescu, pp.80-81). If there will be no or little difference in perceived issue proximity1 between the more informed and the others, then I can imply that information does not have an important effect on information, and thus the capacity to make good electoral decisions (vote for the candidate that is closest to you on your most important issue) of the respondents must be explained by something else, such as heuristics and/or emotions.

Two hypothetical scenarios will be computed to evaluate the effects of an information increase on the capacity to make good electoral decisions. Scenario A will estimate the effect of information in the case of perfectly informed voter. In other words I will investigate what will happen to the distribution of issue proximity if everyone were to suddenly become perfectly informed, the value of information will be 1 for every respondent.

Still, this increase is problematic for at least two reasons. First, it assumes the unrealistic scenario in which every voter will be perfectly informed. Second, in the case of perfectly informed voters, we cannot distinguish between the effects of higher information level and an unequal level of information level across social groups (Toka and Popescu 2008, p.79). For this reason in Scenario B, the level of information will increase with the square root of information for every respondent, thus never reaching the value of perfectly informed voters and also maintaining differences in information across social groups.

For both scenarios I will substitute these hypothetical values of information with those in equation (3.1) (thus allowing information to influence proximity either directly or in interaction

with social demographic variables), with the observed level of political information to estimate how information to influence the distribution of proximity either directly or in interaction with social demographic variables, using b(i) parameters estimated (see Appendix 2).

Thus, hypothetical levels of issue proximity will be computed for each respondent using the method described above. The same method will be used to simulate the issue proximity for the uninformed voters. In this situation a value of 0 will be given for information in equation (3), thus the only variables which will be taken into consideration are the socio demographic ones (as for the interactions the value will be 0, as information is 0).

It can be argued that, due to the small value of the adjusted R^2, equation 3.1 is far from showing any fit, and thus the conclusions based on this model may be completely irrelevant for the original data. Still, this does not represent an inconvenience, as the fit (measured by the log likelihood) of similar models (Bartels 1996; Althaus 1998), using the same independent variables, are also low. Even if Bartels uses the method to predict the effect of information on vote choice (Bartels, 1996), and Althaus to predict the effects of information on attitudes towards the Spousal Notification Laws (Althaus, 1998), their analysis offers an idea of what fit we can expect for models using only information and socio-demographic variables[9].

Furthermore Toka (2008) and Toka and Popescu (2008) do not even report any measures of fit for their baseline models. Still, considering that they estimate vote choice based on only

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[9] Even if the Bayesian Information Criteria (BIC) can only be accurately compared between models which have the same dependent variable and are computed from the same sample (Kuha 2004), doing this comparison reveals that my model has lower values for BIC (1233.7) than both Bartels models (1609) and the Althaus model (2463), which suggests that the model presented in equation 3.1 fits at least as well as these models.

socio-demographic variables and information, these models cannot have a high R^2 values, hence also having a poor fit.

This being said, two comparisons will be made using a paired sample t test (see Table 5.2.1). Using a paired sample t test, even if is a simpler method, will actually be an improvement to methods used in similar studies as it solves the problem pointed out by Sturgis, of only showing aggregate level change caused by the a simulated increase of information levels (Sturgis, 2003).

The first (Scenario A) will be similar to the method use by Bartels in which two hypothetical cases will be compared, fully informed and fully uninformed voters (Bartels 1996). Scenario B will take into consideration the remarks of Toka and Popescu regarding the method used by Bartels (see above) and thus compares the effects of a hypothetical increase in information (in scenario B everyone's information increases with its square root value) with the actual value of issue proximity as it is estimated by equation (3.1) in the case of the real level of information of the respondents (residuals will not be taken into consideration as they cancel out in all cases).

Table 5.2.1 Simulated effects on issue proximity of an increase in information, wishful thinking model

Scenario A (full information - uninformed		Scenario B (square rooted increase-actual information)	
Mean difference (absolute numbers)	Significance level	Mean difference (absolute numbers)	Significance level
. 679 (0.0156)	p<0.01	. 11370 (0.00299)	p<0.01

-standard errors reported in parenthesis

The results presented in Table 5.2.1 show that an increase of information increases the capacity of individuals to make good electoral decisions by reducing the perceived issue proximity between the respondent and the candidate he voted for. Thus, when comparing the fully informed with the entirely uninformed in the case where proximity is measured using issue proximity1 (7 point scale, 7 perceiving the candidate as being close, 1 perceiving the candidate as being very far) we can tell with 95% confidence that the difference between the fully informed and the completely uninformed in issue proximity is between 0.65 and 0.71 (.679±1.96*std. error), significant at p<0.01. This means that all other condition being equal, the fully informed hypothetical respondent is more likely to perceive the candidate which he voted for as being closer to him, and thus can make a better electoral decision then the uninformed.

Scenario B (a square rooted increase in the information, a more realistic scenario), shows a similar result, the difference being that here the increase in the level of information will have a smaller influence on the perceived issue proximity. In this case a simulated increase in the level of information will lead to a difference of in issue proximity, 0.113 significant at p<0.01, between the hypothetical more informed voters and the actual respondents. This increase, although smaller in this case, also shows that a simulated increase in the level of information will reduce perceived issue proximity and thus will lead to better electoral decisions.

The results presented above show that more informed voters are more capable of making better electoral decision, as they perceive the candidate they voted as being better closer to them on the most important issue. In other words, they have a better chance to vote for the candidate they think is best fit to handle their most important issues, and a smaller chance to make the wrong decision by voting for the other candidate.

Still these results need to be analyzed with caution when taking into consideration the increase of information simulated. The changes in scenario B (which presents a more realistic scenario) are not very spectacular. As a sudden rise of information will only increase issue proximity by 0.1, this does not considerably improve the capacity to make good decisions. This effect is more evident when the perfectly politically informed are compared with the uninformed, the analysis shows that the two groups are only separated by less than 1 position on a 7 point scale, which is a small difference when considering the difference in information between the two groups. All in all, when considering these results, it can be assumed that an increase in information will in fact not greatly improve the proportion of voters which make the right choice (see table 5.2.2).

In order to test the last statement, I subtracted the perceived issue proximity between the respondent and the candidate he did not vote for (calculated using exactly the same method as for the candidate he voted for see pages 17-18) from the perceived issue proximity between the respondent and the candidate he voted for. Thus a score over 0 means the respondent was indeed closer to the candidate he voted for, thus making a correct choice, and a score above 0 means that he was closer to the opposite candidate, thus he should have voted for him. The respondents who had a score of 0 were eliminated from the sample as for them it cannot be judged what would have been the better answer.

Using the same method of simulating an increase level of information, as described above, I looked at how the percent of those making a wrong decision would change if the level of information were hypothetically increase in the case of Scenario A and Scenario B (see appendix 3 for parameters of the baseline equation from which the simulated results were computed).

Table 5.2.2 Percentage of votes voting for the correct/wrong candidate.

	Actual respondents	Increasing information by square root	Perfectly informed
Percent of respondents choosing the wrong candidate	14.6%	12.6%	11.9%
Percent of respondents choosing the wrong candidate	85.4%	87.4%	88.1%
Number of cases	961	961	961

Thus, even if more politically informed people perceive the candidate they voted for as being closer to them, thereby making a better electoral decisions, the results presented in Table 5.2.2 clearly show (only if at an aggregate level) that the change brought by a hypothetical increase in information would not considerably improve the proportion of voters perceiving the candidate they voted for as being closer then the opposite candidate, hence making the right choice. Even in the most optimistic scenario, where everybody will become perfectly informed, the percent of voters making the right choice (under the condition that perceived issue proximity determinate the electoral choice) would only change by 2.7%, clearly showing the limited role of information.

To further show that the difference between the fully informed/better informed and completely uninformed does not have such an important effect on issue proximity (and thus on the capacity to make good political decisions), I will look how this difference evolves in time. According to the knowledge gap hypothesis, the difference in the quality of information between different socio demographic groups should increase. In other words, the difference between perfectly informed voters and the other categories (particularly between perfectly informed and uninformed) should theoretically increase in time, as high status voters benefit from the infusion

of information brought by the media and alternative source of information while uninformed voters remain passive (Holbrook 2002; Prior 2004). But, if H2 is correct, this increased difference in the level of political information should not affect the difference in issue proximity between voters as even uninformed can compensate for this disparity in other ways.

To test this hypothesis, I will use a regression model in which the dependent variable would be the difference between the simulated values for issue proximity1, in the case of both scenario A and B, estimated using equation (3.1) (errors not taken into consideration as they cancel out). The difference between more and less informed voters reflects how perceived issue proximity will change (and subsequently the capacity to make good decisions will change) in time taken into consideration the increased difference in terms of the levels of political information predicted by the knowledge gap hypothesis.

The main independent variable will be time (measured using the year of study[10]); as a simulated increase in the information level (as the one in Scenario B) will produce similar effects in time as the infusion of information predicted by the knowledge gap. Theoretically if the infusion of information (simulated be scenario A and B and hypothesized by the knowledge gap) has a positive influence on the perception of issue proximity, then the simulated difference in issue proximity (between the actual respondents and the hypothetical case where information was artificially increased) should also increase in time. But if H2 (the increased difference in information will not lead to an increase difference in the capacity of the voters to make good political decisions) is correct it would not be the case that the difference in issue proximity will increase, as less informed voters could use other mechanism, such as heuristics or emotions, to compensate for this widening gap.

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[10] The year of study was recoded, the baseline year, 1980 is coded 0; this means that the baseline difference is considered to be that in 1968, the other year take the value: year-1980.

In estimating the effects of information in time, I assume that cohort effects are 0 (there is no theoretical reason to believe that the infusion of information would affect respondents of different ages differently), as time and cohort cannot be model at the same time (Firbaugh 1997).

The interesting finding when looking at Table 5.2.3 is to see how the difference in proximity between the hypothetically more informed and the actual respondents changes in time. If information has indeed an influence, and according to the knowledge gap hypothesis it does; the difference between hypothetically more informed voters and less informed votes should lead to an increase in the value of issue proximity over time. As more informed voters will benefit from the infusion of information, and, if information has an effect on perceived ideological proximity, they will be able to transpose this addition of information into a better ability to choose the candidates which they perceive as being more appropriate. Conversely, poorly informed voters will continue to remain uninterested in political information, and less capable of voting for the candidate that they voted for as closer perceived as closer (Holbrook 2002; Prior 2004).

Not surprisingly, the results in Table 5.2.3 show that the previous statement is not correct. The fact that year has a negative sign shows that the effect of information on the capacity to make good electoral decisions becomes smaller over time, significant at a level of $p<0.01$ in all cases. The effect of time is even stronger when the difference between the informed and uninformed is greater (the case of scenario A), showing that the difference in terms of issue proximity between the two groups decreases more than in the case of scenario B.

Table 5.2.3 Effect of variance of perceived issue proximity in time, wishful thinking model

	Simulated value of issue proximity1-issue proximity 1 (Scenario B)	Simulated value of issue proximity1-issue proximity 1 (Scenario B)	Simulated value of issue proximity1-issue proximity 1 (Scenario A)	Simulated value of issue proximity1-issue proximity 1 (Scenario A)
Year	**-.004***(0.000)**	**-.004*** (0.000)**	**-.021***(0.001)**	**-.025***(0.001)**
Age		.003*** (0.001)		,030*** (0.003)
Age squared		-2.791E-5*** (0.000)		,000*** (0.000)
Gender (male)		-.091*** (0.005)		-,510*** (0.015)
Race (black)		-.072*** (0.007)		-,494*** (0.024)
Region (south)		.071*** (0.005)		,460*** (0.017)
Income		.015*** (0.003)		,126*** (0.009)
Religion		-.014*** (0.002)		-,083*** (0.005)
Education		-,005*** (0.002)		,039*** (0.005)
Homeowner		-.016*** (0.006)		-,104*** (0.02)
Married		-.067*** (0.006)		-,481*** (0.001)
Intercept	.159** (.005)	-.179*** (0.21)		.375*** (0.001)
Adjusted R^2	.063	.436	0.056	.759
Model fit (sig of F test)	.000	0.000	0.000	0.000
N	1265	1265	1265	1265

***denotes p<0.01, **p<0.005, *p<0.1 unstandardized coefficients reported, standard errors in parenthesis

The results clearly show that difference between more and less informed voters decreases in time, contrary to what knowledge gap would predict if information would have an effect. Thus, if the increased disparity in the level of information between more informed and less informed voters (as theorized by the knowledge gap hypothesis) does not affect the difference in issue proximity between the two groups, in fact it even reduces it, H2 is confirmed (a diminishing of information effect on the capacity to make good electoral decisions over time).

But still, according to the knowledge gap, the difference in information between the two groups in the quality of political information increases. In this situation, something must compensate for this difference, as the perceived issue proximity between the hypothetically more informed and the less informed voters remains the same (or even decreases). Under these circumstances we could argue that the increasing difference in information between the two groups is compensated by heuristics. More interesting is the fact that the difference reduces more in the case of scenario A (were the difference in time of information is maximum), showing that the difference decreases much more in this case. This means that even hypothetically totally uninformed people could make use of heuristics and, even more, that they use them more efficiently as the difference decreases more than in the case of scenario B. But still for concluding evidence a further analysis needs to be carried out.

Chapter 6-Information Effects on Objective Proximity

It is unrealistic to believe that people do indeed try to vote correctly, meaning that they gather information about all the candidates and objectively choose the candidate that best represents their interest. Using objective proximity offers us the advantage of challenging the normative imperative of having an informed electoral using a model that is based on normative theories, thus bringing future evidence for H1 and H2. This will be done using a very similar methodological design as in the case of perceived issue proximity. As a reminder in this case, I will analyze the objective issue proximity calculated by subtracting the objective position of candidates computed based on the opinion of the most educated people from the sample who did not vote or voted for an independent, thus were later excluded from the sample, (see appendix 4 for the objective position of candidates on the ideological scale and on the issue scales) from the position of the respondents. After recoding, a score of 7 indicates that the respondent is very close to the candidate, hence he made a good decision. A score of 1 will indicate a large difference between the respondent and the candidate, hence he made a poor decision (for a more detailed description see pages 20-22).

6.1 Evaluating the Effects of Political Information

As in case of perceived proximity, the first step of the analysis is to evaluate the effect of information on good political decisions (as a reminder a small issue proximity between the respondent and the candidate they voted for means that the respondent made a good decision). Again, a simple regression model will be used in order to assess the effect of information on the two scores (objective ideological proximity and objective issue proximity) measuring proximity.

Besides controls, this analysis also includes the strength of party ID, as a proxy for heuristics, which in the previous case showed itself to be a better predictor for the perceived issue proximity.

Table 6.1.1 Parameter estimates for good political decisions, rational choice model

	Objective ideological proximity	Objective issue proximity
Information	**,105***	**.138**
Party ID strength	**,039***	**.011**
Year	,053**	-.107***
Age	,080	,075
Age squared	-,096	-,110
Male	-,013	-,051
Income	,057***	,027
Church attendance	-,046***	,016
Black	-,091***	-.030
Region (South=1)	-,019	.037
Homeowner	,021	-,018
Married	,006	,020
Intercept	5.444***	5.002***
Adjusted R^2	.036	.039
Model fit	.000	.000
N	3431	1307

***denotes p<0.01, **p<0.005, standardized coefficients reported for continuous variable

In both the cases presented in Table 6.1.1, the level of political information has a positive significant effect (an increase in information increases the score for objective proximity) in both cases and, much more, is the strongest predictor for proximity. This is not the case of strength of party ID, which, even in the case when it is statistically significant (the case of ideological proximity), it is a weaker predictor that information. These results show indeed that the effect of information on the objective proximity are stronger than in the case of the perceived of proximity

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(see Table 5.1.1), also in this case the influence of heuristics (using strength of party ID as a proxy for heuristics) is weaker (or not even present). Thus it can be said that if voters would use the rational decisions model information (which for most people is not the case), higher levels of political information would indeed help them to choose the candidate that best represents their interest, and subsequently help them to make more correct electoral decisions.

Still, the result presented above need to be analyzed with skepticism, as even in this case the predictive power of the two models is very low. Even if in the case of the rational decisions model, where the theory clearly suggests that indeed political information is very important for proximity (Delli Carpini and Keeter 1996; Lau and Redlawsk 1997; Lau and Redlawsk 2006, 8-11; Downs 1957: Dahl 1989), the simple model using only the predictive power of a model based only on information and controls still remains low (a maximum of 3.9% of the variation in objective proximity explained). Although it performs better than in the case of perceived proximity (in that case the R^2 did not exceed 0.026, see Table 5.1.1). This shows that even in the case of rational choice, models that use information lack the predictive power for good decisions thus bringing evidence to support H1(the fact that information has at best a small effect on the capacity to make good political decisions).

6.2 Simulation of an Increase of Information on Objective Proximity

Looking at Table 6.1.1, it is clear that political information influences the perception of issue proximity (although the influence is rather small). The next step (as in the case of perceived proximity) is to see how, or if, issue proximity will change if the level of information increases. If H1 is correct, a hypothetical increase in information would have an insignificant or, at best, a small effect on issue proximity as mechanisms such as heuristics could be as efficient even in

cases of smaller levels of information (Tversky and Kaheneman 1974; Popkin 1994; Page and Shapiro, 1992; Lau and Redlwask 2001).

For assessing how exactly objective proximity will change in a hypothetical scenario of better informed voters, I will develop the same simulation procedure as in the case of perceived issue proximity (see pages 32-33), and compare it to the distribution of issue proximity of less informed voters; similar models were used by Bartels, Althaus and Toka (Bartels1996, pp 205-207; Althaus 1998; Toka 2008, pp.36-37; Toka and Popescu, pp.80-81). As in the previous case, if there will be no or little difference in the distribution between the more informed and the others, then I can imply that information does not have a significant effect on information and thus the capacity to make good electoral decisions (vote for the candidate that is closest to you on your most important issue) of the respondents must be explained by something else, such as heuristics and/or emotions.

The same two hypothetical scenarios as in the case of perceived issue proximity (scenario A and scenario B, see above) will used to evaluate the effects of an increase of information on the capacity to make good electoral decisions. As a reminder Scenario A will estimate the effect of information in the case of perfectly informed voter and compare it to that of the perfectly uninformed. But as mentioned earlier, this scenario is problematic, thus in the case of scenario B the level of information will increase with the square root of information for every respondent and the results will be compared to the actual objective proximity of individuals in the sample.

Similar to the previous analysis, I will substitute these hypothetical values of information with the ones in equation (3.2) (thus allowing information to influence proximity either directly or in interaction with social demographic variables), with the observed level of political information to estimate how information to influence the distribution of proximity either directly

or in interaction with social demographic variables, using b(i) parameters estimates (see Appendix 5). The difference rests on the fact that in this case, education and its interaction with information were excluded from the right side of the equation, as the level of education was used to compute the objective position of candidates and thus including education would not fulfill the criteria of independency of the dependent variable.

$$\text{Proximity}^{11} = b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_k X_k + b_{(k+1)} X_1 \text{Information} + b_{(k+2)} X_2 \text{Information} + \ldots + b_{2k} X_k \text{Information} + b_{(2k+1)} \text{Information} \qquad (3.2)$$

The comparison between the more and less informed voters, as simulated by scenario A and scenario B, will be made using a paired sample t test (see Table 6.2.1), thus avoiding the problem of only showing aggregate level change caused by a simulated increase of information levels (Sturgis, 2003).

Table 6.2.1 Simulated effects on objective proximity of an increase in information

	Objective ideological proximity		Objective issue proximity2	
	Mean difference	Significance level	Mean difference	Significance level
Scenario A (full information –uninformed)	.44143 (0.045)	p<0.01	.50517 (.019)	p<0.01
Scenario B(square rooted increase-actual information)	.048 (0.001)	p<0.01	.07868 (.002)	p<0.01

-standard errors reported in parenthesis

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[11] In thus cases above proximity refers to objective proximity.

The results presented in Table 6.2.1 are not very different from those reported in the case of perceived proximity (see table 5.2.1), where an increase of information increases the capacity of individuals to make good electoral decisions by reducing the objective issue proximity between the respondent and the candidate he voted for, hence showing that voters made a rational choice. Thus, when comparing the fully informed with the uninformed (scenario A) in the case where objective proximity is measured using ideological proximity (7 point scale, 7 perceiving the candidate as being close, 1 perceiving the candidate as being very far) we can tell with 95% confidence that the difference between the fully informed and the uninformed in objective ideological proximity is between 0.48 and 0.52 (.679±1.96*std. error), significant at $p<0.01$. This means that all other conditions being equal the fully informed hypothetical respondent are more likely to perceive the candidate which he voted for closer to him, thus can make a better electoral decisions then the uninformed.

Scenario B (a square rooted increase in the information), shows similar results, with the difference that in this case (which is a more realistic scenario) the simulated increase in the level of information produced a substantially lower reduction in the objective ideological proximity. The increase in the level of information will lead to a difference of in issue proximity 0.079 significant at $p<0.01$, between the hypothetically more informed voters and the actual respondents. This increase, although smaller in this case, also shows that a simulated increase in the level of information will reduce perceived issue proximity and thus will lead to better electoral decisions.

The findings in the case of objective issue proximity reinforce those presented in the case of perceived ideological proximity (although the two variables are not correlated). Thus when the difference between more and less informed is substantial (scenario A) the difference in objective

issue proximity is 0.44. Again, in the more realistic scenario (scenario B), where the case of a simulated increase in information is compared with the actual value of issue proximity, the difference is not at all spectacular.

All in all, we can say that taking into consideration the rational decision model, which considers objective proximity, more informed voters are more capable of making better electoral decisions as they are more capable of identifying the candidate who is closer to them and hence best represents their interests. These results seemingly confirm the expectancies regarding the substantial role that information should have if voters were to base their decisions on rational decisions models (Delli Carpini and Keeter 1996; Lau and Redlawsk 1997; Lau and Redlawsk 2006, 8-11; Downs 1957: Dahl 1989).

But as for perceived proximity, the effects of a hypothetical increase in information need to be analyzed with caution. Thus the results presented by the more realistic scenario B are not at all breathtaking, as a sudden rise of information will only increase issue proximity by less than 0.1 (0.048 in the case of ideological proximity and 0.078 in the case of issue proximity). Under these circumstances it is hard to believe that an increase in the level of information considerably improving the capacity to make good decisions. Furthermore, not even the difference between perfectly politically informed and the uninformed when it comes to objective proximity are as substantial as one might initially believe. The analysis shows that the two groups are only separated by less than half of a position (approximately 0.5) on a 7 point scale, which is a small difference when taking into consideration the normative implications that this difference in information has for rational decision models. Theoretically, the politically uninformed should not be able to identify their own interest as they did not gather any kind of information that could make them evaluate objectively which is the best candidate for them. All in all, when

considering these results it can be anticipated that an increase in information will actually not greatly improve the percent of voters making the right choice.

But what is more surprising in this case is that the difference between more and less politically informed hypothetical voters, in terms of issue proximity, is smaller than in the case of the perceived ideological proximity (0.505 compared to 0.679 for scenario A and 0.078 compared to 0.113 for scenario B). This comes as a response the critiques of the wishful thinking model that state that perception is independent of the level of political information as the voters who use this model are actually less informed, and for which information does not meter as their closely their perception of the candidate for which they voted for is determined by the need for cognitive balance and not by higher level of political information (for a more detailed explanation see pages 15-16). On the contrary, based on these findings we can even claim that information is more important in the case of the perceived issue proximity then in the case of the objective proximity.

In order to see how the percent of those for whom the opposite candidate was actually closer (thus according to the rational decision model they made an incorrect decision) varies if information hypothetically increases, I will use the same method as in the case of the perceived issue distance (see page 36). Thus, when comparing the score for objective proximity between the respondent and the candidate he voted for, with the score between the respondent and the opposite candidate,   a score over 0 means the respondent was indeed closer to the candidate he voted for, thus making a correct choice, and a score above 0 means that he was closer to the opposite candidate, thus he should have voted for him. Again, the respondents having a score of 0 were eliminated from the sample as for them it cannot be judged what would have been the better answer.

Using the method of simulating an increased level of information describe above, I looked at how the percent of those making a wrong decision (if voters would indeed use the rational decisions model) would change if the level of information would hypothetically increase in the case of Scenario A and Scenario B (see appendix 6 for parameters of the baseline equation from which the simulated results were computed).

The results in Table 6.2.2 clearly show that not even in the case of objective proximity where information is, according to the theory, expected to have a substantial impact. It is clear that a hypothetical increase in information would not considerably change the proportion of respondents who vote for the candidate who is closer to them, and by doing so making a better electoral decision.

Table 6.2.2, Percentage of votes voting for the correct/wrong candidate.

	Objective ideological proximity			Objective issue proximity		
	Actual respondents	Increasing information by square root	Perfectly informed	Actual respondents	Increasing information by square root	Perfectly informed
Percent of respondents choosing the wrong candidate	31.3%	30.5%	26.4%	34.4%	29.7%	25.3%
Percent of respondents choosing the wrong candidate	68.7%	69.5%	73.6%	65.6%	70.3%	74.7%
Number of cases	3243	3243	3243	1322	1322	1322

Thus, surprisingly, people would base their decisions on the objective proximity between them and candidates if political information would increase with its square root for everyone (which actually favors lower informed respondents who in theory are less capable of identifying the right candidate, as information will raise much more in their case), the proportion of the ones making the correct decision will increase with only 0.8%. Even if we take into consideration the unrealistic scenario of everybody being perfectly informed the proportion of respondents who would make the right decision will only increase by approximately 5%.

Looking at the situation where information should, in theory, have its largest impact (if voters would make their decisions based on the objective proximity to the candidates considering their most important issue) we can still notice a minimal impact (even though it is larger than in previous situations) of information. Hence if people would actually vote according to proximity on the most important issue, if the level of information will increase by its square root the proportion of those making the correct decision will only increase with less than 5%. Even taking into account the scenario of everybody becoming perfectly informed shows that the benefits of information are limited; the proportion of those making the correct decision will slightly improve (10%), especially if we take into consideration the 'effort' that needs to be put in order to make this happen.

Following the logic of analyzing perceived issue proximity, the next logical step is to investigate how the difference between hypothetically more informed and the hypothetically uninformed the actual respondent would evolve in time. Again, using the knowledge gap hypothesis we can expect that high status voters will benefit from the infusion of information brought by the media and alternative source of information while the uninformed voters will remain passive (Holbrook 2002; Prior 2004). Taking into consideration the theoretical

importance which the rational decision model gives to political information this will lead to an increase difference in the objective issue proximity between the two groups and thus to an increase difference in the capacity to make the good electoral decisions. But ,if H2 is correct, this increased difference in the level of political information should not influence the difference in issue proximity between voters, as even the uninformed can compensate for this gap in other ways.

To test if H2 is correct (as the case of perceived issue proximity shows), I will use the a regression model as in the case of the perceived issue proximity (see page 37-39) in which the dependent variable would be the difference between the simulated values for both objective ideological proximity (see table 6.2.2) and objective issue proximity (see table 6.2.3), in the case of both scenario A and B, estimated using equation (3.2) (errors not taken into consideration as they cancel out). The difference between more and less informed voters reflects how perceived issue proximity will change (and subsequently the capacity to make good decisions will change) in time, takeing into consideration the increased difference in terms of the levels of political information predicted by the knowledge gap hypothesis.

As in the case of perceived issue proximity, time (the main independent variable), according to the knowledge gap hypothesis (simulated be the infusion of information in both scenario A and B), should have a positive effect on the difference in objective proximity between the actual respondents (scenario B)/ uninformed (scenario A) and the simulated case where information was artificially increased (the difference should increase in time).

In estimating the effects of information in time, I assume that cohort effects are 0 (there is not theoretical reason to believe that the infusion of information would affect differently respondents of different ages), as time and cohort cannot be model at the same time (Firbaugh 1997).

The interesting finding when looking at Table 6.2.2 and Table 6.2.3 is to see how the difference in proximity between the hypothetically more informed and the actual respondents changes in time. If information indeed has an influence, as it does according to the knowledge gap hypothesis, the difference between hypothetically more informed voters and less informed votes should lead to an increase in the value of the objective proximity over time. As more informed voters will benefit from the infusion of information and (if information has an effect on objective proximity) transpose this plus of information into a better ability to choose the candidates which are closer to them and thus best represent their interest. While poorly informed voters will continue to remain uninterested in political information, they are therefore even less capable of identifying their best interest and thus vote for the candidate which is objectively closer to them (Holbrook 2002; Prior 2004).

Looking at Table 6.2.3 and Table 6.2.4 we can see that time has opposing signs (showing different influences) depending on the way that objective proximity is operationalized. In the case of ideological proximity (see table 6.2.3), time has a positive sign (both according to scenario A and B) showing that the difference between the more and less actually increases in time, significant at $p < 0.01$. Even if the increase is not very strong, it is in accordance to what the knowledge gap would predict; an increase the gap between more and less informed in objective proximity, hence seemingly rejecting H2 (a diminishing of information effect over time).

All in all, this case goes against the theory which suggests as more informed people benefit from the infusion of information they will be better able to identify their own interest, which is shown by an increasing difference in ideological proximity.

Table 6.2.3 Effect of variance of perceived ideological proximity in time, rational choice model

	Simulated value of ideological proximity-ideological proximity (Scenario B)	Simulated value of ideological proximity-ideological proximity (Scenario B)	Simulated value of ideological proximity-ideological proximity (Scenario A)	Simulated value of ideological proximity-ideological proximity (Scenario A)
Year	**.001***(.000)**	,001*** (.000)	**.004***(0.001)**	,002*** (.000)
Age		,002*** (.000)		,018*** (.001)
Age squared		-1,804E-5*** (.000)		,000*** (.000)
Gender (male)		,052*** (.002)		,446*** (.004)
Race (black)		,033*** (.003)		,150*** (.007)
Region (south)		-,013*** (.002)		-,110*** (.005)
Income		-,012*** (.001)		-,038*** (.002)
Religion		-,009*** (.001)		-,077*** (.001)
Homeowner		-,011*** (.002)		-,078*** (.006)
Married		-,025*** (.002)		-,18*** (.005)
Intercept	.034** (.002)	.039*** (0.07)	.393***(009)	.265*** (0.019)
Adjusted R^2	.024	.378	0.010	.832
Model fit (sig of F test)	.000	0.000	0.000	0.000
N	4305	3438	4305	3438

***denotes p<0.01, **p<0.005, *p<0.1 unstandardized coefficients reported, standard errors in parenthesis

Table 6.2.4 Effect of variance of perceived issue proximity in time, rational choice model

	Simulated value of issue proximity- issue proximity (Scenario B)	Simulated value of issue proximity- issue proximity (Scenario B)	Simulated value of issue proximity- issue proximity (Scenario A)[12]	Simulated value of issue proximity- issue proximity (Scenario A)
Year	**-.0007**(.000)**	-,001*** (0.000)	-	-,004*** (0.001)
Age		,006*** (0.001)		,042*** (0.003)
Age squared		-6,147E-5*** (0.00)		,000*** (0.000)
Gender (male)		,016*** (0.004)		,175*** (0.018)
Race (black)		,074*** (0.006)		,345*** (0.027)
Region (south)		,033*** (0.004)		,206*** (0.020)
Income		-,002*** (0.002)		,043*** (0.010)
Religion		-,012*** (0.001)		-,082*** (0.006)
Homeowner		-,003*** (0.005)		-,036 (0.023)
Married		,027*** (0.005)		,134*** (0.021)
Intercept	.085*** (.002)	-.039*** (0.017)	-	-.556*** (0.019)
Adjusted R^2	.003	.304	0.00	.435
Model fit (sig of F test)	.015	0.000	0.386	0.000
N	1652	1311	1652	1311

***denotes p<0.01, **p<0.005, *p<0.1 unstandardized coefficients reported, standard errors in parenthesis

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[12] This model was not taken into consideration as it the lack of fit shows that the null hypothesis cannot be rejected

As there is no significant correlation between objective ideological proximity and objective issue proximity, it can be argued that ideological proximity does not accurately reflect the traditional view of correct voting according to the decision making model (Lau and Redlawsk 2006, 8-11). As decisions which are made based ideological proximity do not reflect a general understanding by individuals of the candidates and not a specific interest it is possible that on a certain issue, important for a voters, he will have different opinions that the particular candidate he is ideologically close to. This is why looking at the objective issue proximity might be more appropriate.

When looking at the effect of time on objective issue proximity (Table 6.2.4) the results bring a new perspective on the evolution of proximity in time. In this case, similar to the case of perceived issue proximity (see Table 5.2.3), year has a negative sign showing that the effect of information on the capacity to make good electoral decisions become smaller over time, significant at a level of $p < 0.01$ in all cases.

Even if the effect of time is not very strong, the results clearly show that the difference between more and less informed voters decrease in time, contrary to what knowledge gap would predict if information would have an effect. Thus, if the increased disparity in the level of information between more informed and less informed voters (as theorized by the knowledge gap hypothesis) does not affect the difference in issue proximity between the two groups, or even reduces it, this supports H2 (a diminishing of information effect on the capacity to make good electoral decisions over time).

But still, according to the knowledge gap, the difference in information between the two groups in the quality of political information increases. In this situation, the effect of information cannot be contested (as in the case of the wishful thinking model), as the theory suggests that

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political information is the main determinant for the capacity to identify the candidate according to the rational decision model (Delli Carpini and Keeter 1996; Lau and Redlawsk 1997; Lau and Redlawsk 2006, 8-11; Downs 1957: Dahl 1989). In this situation something must compensate for this difference as the objective issue proximity between the hypothetically more informed and the less informed voters decreases in time. Under these circumstances we could argue that the increasing disparity in information between the two groups is compensated by heuristics. More interesting is that the difference declines more in the case of scenario A (were the difference in time of information is maximum), this means that even hypothetically uninformed people could make use of heuristics and, even more, that they use them more efficiently as the difference decreases more than in the case of scenario B. The fact that heuristics could indeed compensate for the difference between the two groups, is even more straightforward in the case of perceived issue proximity (see Table 5.2.3) as in this case information is expected to have a clear influence on objective issue proximity. But still, it needs to be remembered that this is only an assumption which cannot be tested using the data available.

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Chapter 7-Conclusions

The purpose of the thesis was to investigate if information has an influence on a voter's ability to make good electoral decisions. The point was to show that the capacity of voters to choose the candidate closest to them, thus making a good electoral decision, is independent of their level of political information, and thus dependent on some other mechanisms such as heuristics or emotions.

In order to bring evidence to support the two hypotheses presented in the beginning of the paper:

H1: The difference in terms of information between people with different levels of information has little or no effect on the issue proximity of voters and thus on their capacity to make good political decision.

H2: The increased disparity in the level of political information between these groups will not lead to an increased difference in the capacity to vote for the candidate closest to them, thus not affecting their ability to make good political decisions.

Both perceived and objective issue proximity have been analyzed. The objective proximity model (also referred to as the rational decision model) is a more normative approach which emphasizes the role of political information, but which has at its base the unrealistic assumption that people try to vote correctly as they objectively evaluate each candidate. On the other hand, perceived proximity (also referred to as the confirmatory decision making or wishful thinking model) even if it can be argued that it is independent from political information, offers a more realistic view of the actual mechanisms that people employ when making a decision, as it was shown that this mechanism is used by most voters.

The first analysis was done by directly assessing the information effects on the three operationalizations of perceived proximity (see Table 5.1.1) and on the two that reflect scores for objective proximity (see Table 6.1.1). I showed that even in the cases where information has a statistically significant effect, a simple model based on information accounts for very little of the variation in proximity, as in all cases the values of the R square values were extremely low. Even from this first analysis it can be inferred that the effect of information on the capacity to make good political decisions, measured by both perceived proximity between the voter and the candidate and objective proximity (after recoding a large score means small perceived proximity), has a smaller effect than a normative ideal would suggest. Furthermore in the case of perceived proximity, even a simple heuristic such as "strength of party ID" was a stronger predictor for proximity than information. All in all, even this simple analysis shows the limited effect on the ability for one to vote for the candidate closer to them, and hence on the capacity to make good electoral decisions, bringing even from this point evidence that supports H1.

Still the previous analysis is inconclusive for the cases where information did not show a significant effect (perceived ideological proximity and perceived issue proximity2), as this could be the cause of type II errors. In order to overcome this impediment, a comparison of model fit, between a base line model that does not contain information (see equation 1) and two other models was made. The first model is described in equation 2, and, besides the socio demographic variables in equation 1, also includes information. The second model is described by equation 3.1, besides the fact that it includes information it allows for information effects to vary across different social groups, showing if information does a have a mediated influence on the capacity to make good decisions. As this analysis did not show any significant improvements of model fit for perceived ideological proximity and perceived issue proximity2 (see table 5.1.2), I

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considered that the information effects could not be accurately evaluated for these cases, thus I dropped this from further analysis.

Concluding that information has a small effect does not reject H1 as it could be the case that this effect is not decisive in influencing the capacity to make good electoral decisions. This was shown to be the case when simulations of issue proximity were computed for the case of hypothetical increases in the level of political information. Thus, two scenarios were imagined for both operationalizations. In the first, hypothetical values of issue proximity were generated for the perfectly informed voters and for the perfectly uninformed voters. In the second scenario, an increase by the square root of information was simulated and the scores were compared with the values computed for the actual respondents (the values for perceived issue proximit1 were computed using equation 3.1, for perceived issue proximit1 and equation 3.2 for both objective ideological proximity and issue proximity). Using paired t tests to compare the changes after applying the effect of the 'treatment' within individual changes (a method superior to other similar methods as bootstrapping and jackknife, because it shows individual level change not only aggregate change), shows that simulated increase information would indeed improve the capacity of voters to choose the candidate closest to them. Still, in all cases (perceived issue proximity1, objective ideological proximity and objective issue proximity) the differences were not as spectacular as one might expect, especially taking into consideration the difference in terms of political information in both scenario (see table 5.2.1 and table 6.2.1). Much more important is the fact that this simulated increase of information would not considerably improve the percentage of people actually voting for the wrong candidate (the one furthest for them), as in most the cases this percentage will decrease by only less than 5% (see table 5.2.2 and 6.2.2). Taking into consideration this slight increase, especially when compared to the actual effort

which would be necessary for levels such as those simulated by scenario B (the level of information increases with its square root for everybody) to be actually attained, one must ask oneself if such enterprises as those made by the supporters of the deliberative democracy (which only influence a small proportion of the population) are actually worth doing. What would be the benefits of a large scale, and probably very expensive, political information campaign if the ability to vote for the candidate closest to them, thus making a correct decision, will not considerably change (mainly because people already have the tools to make good decision based on limited information)?

The last and probably most important part of this paper analyses how the difference in proximity between more and less informed voters evolves in time. If information were to have an effect on both perceived and objective proximity, the disparity in proximity between less and more informed people should further increase in time, as according to the knowledge gap hypothesis, the difference in information between these two groups increases in time. Still this does not happen; on the contrary (in both the cases of perceived issue proximity1 and of objective issue proximity) the difference is decreasing over time, as the results in Table 5.2.3 and Table 6.2.4 clearly show. Thus, taking into consideration the knowledge gap hypothesis, this shows that information loses in importance.

Thus it can be concluded that the increased difference in the level of information over time, as hypothesized by the knowledge gap, does not affect the capacity of voters to make correct electoral decisions. Furthermore if the difference in the capacity to make better decisions between the two groups decreases, it must be the case that the less informed voters must use some other mechanisms to compensate for the decrease in their level of political information. This suggests the existence of different cognitive mechanisms, such as heuristics and/or

emotions that can effectively compensate for the decrease in the level of information. Even more, it can be said that these mechanisms became more effective over time as they compensate for a greater difference in information.

What is clear and straightforward from this paper is that information does not have the influence on the capacity to make good electoral decisions that normative theories suggests (Dahl 1989; Fishkin 1996; Fishkin 2003; Fishkin and Luskin 2005; Fishkin et. all 2000; Brady et. all 2003; Luskin 2003; Somin 2006). Even if in the case of perceive proximity, it can be argued that this opertionalization is not dependent on the level of political information as people only perceive candidates as being closer due to the need for cognitive balance (which is actually not the case), thus the results presented in this paper are not surprising. The small impact of information which decreases in time is clear cut even in the case of the objective issue proximity, where the capacity to make good electoral decisions is theoretically dependent on the level of political information, as only the more informed have the capacity to evaluate objectively all the candidates.

Furthermore, taking into consideration the findings from this paper, two points need to be considered. First, efforts to raise the levels of political information among the public would be of little use (and also a waste of money). Second, if information does indeed have a small influence on both perceived and objective proximity, political parties should further move towards the direction of emotional appeals and reinforcement mechanisms, independent of political information.

Appendix 1

AGE: Age in years.

AGE-SQUARED: Age in years squared.

EDUCATION: 7 point scale from the ANES (ANES VCF0140a).

RELLIGION: 5 point church attendance from 1 every day to 5 never. . (ANES VCF0130).

REGION: region of the respondents 1-south, 0-north (ANES VCF0113).

BLACK: represents the race of the respondent 1 black, 0 white (ANES VCF0105).

INCOME: household income (5 scale percentile of the population the family is in 1-0 to 16, 2-17 to 33, 3-34 to 67, 4- 68 to 94 and 5- 96 to 100). . (ANES VCF0114).

MARRIED: marital status, dummy 1 married and 0 single (ANES VCF0146).

HOMEOWNER: home ownership 0 - does not own a house, 1 - does own a house (ANES VCF0147).

Appendix 2: Results of OLS regression computed based on equation (3.1)

Post - R Level of Political Info	.344
y1984	.350
y1992	-.079
y1996	.603**
y2000	.548
Respondent Age	-.018
Agesqr	.000
Respondent Gender	.332**
Respondent Race 2-category	,298
Political South/Nonsouth	-.126
Family Income	-.023
Church Attendance 6-category [1 of 2]	.051
R Education 7-category	-.049
Home Ownership by R Family	.060
Marital Status of R	.279
infoXz1984	-.873**
infoXz1992	-.375
infoXz1996	-1.142**
infoXz2000	-1.197**
infoXage	.033
infoXagesqr	.000
infoXmale	-.475
infoXblack	-.584
infoXsouth	.415
infoXincome	.149
infoXrel	-.084
infoXeduc	.075
infoXhome	-.103
infoXmar	-.506
Intercept	5.649***
Adjusted R^2	0.05
Model fit (sig of F test)	0.00
N	1265

***denotes p<0.01, **p<0.005, standardized coefficients reported, standard errors in parenthesis

Appendix 3: Results of OLS regression used to computed the difference in perceived proximity between the candidate the respondent voted for and the opposite candidate

Post - R Level of Political Info	,548
y1984	,977
y1992	,198
y1996	1,147
y2000	1,409
Respondent Age	-,032
Agesqr	,000
Respondent Gender	-,035
Respondent Race 2-category	1,150**
Political South/Nonsouth	,252
Family Income	,032
Church Attendance 6-category [1 of 2]	,104
R Education 7-category	-,290**
Home Ownership by R Family	,246
Marital Status of R	,320
infoXz1984	-1,821**
infoXz1992	-,771
infoXz1996	-2,080**
infoXz2000	-2,877**
infoXage	,094
infoXagesqr	,000
infoXmale	-,358
infoXblack	-,966
infoXsouth	-,133
infoXincome	,173
infoXrel	-,148
infoXeduc	,304
infoXhome	-,596
infoXmar	-,646
Intercept	1.048
Adjusted R^2	0.05
Model fit (sig of F test)	0.00
N	931

***denotes p<0.01, **p<0.005, standardized coefficients reported, standard errors in parenthesis

Appendix 4: Objective position of candidates

Democratic candidates

	Liberal-conservative scale	Rights for women	Defense spending	Cooperation with USSR	Aids to black	Government spending
1980	3.96	2.68	3.65	2.56	3.10	-
1984	3.57	-	3.85	3.39	3.19	4.71
1992	3.01	-	2.94	-	-	5.30
1996	3.08	2.15	3.85	-	3.21	4.91
2000	3.00	2.34	4.00	-	3.33	4.97
2004	3.00	2.64	3.62	-	3.14	5.29

Republican candidates

	Liberal-conservative scale	Rights for women	Defense spending	Cooperation with USSR	Aids to black	Government spending
1980	5.68	4.76	5.86	4.65	5.22	-
1984	5.13	-	5.73	5.18	4.45	2.80
1992	5.36	-	4.78	-	-	3.18
1996	5.56	3.68	4.69	-	5.19	3.28
2000	5.23	3.60	5.09	-	5.17	3.44
2004	6.00	3.93	6.00	-	5.07	3.00

Appendix 5: Results of OLS regression computed based on equation (3.2)

	Objective ideological proximity	Objective issue proximity
Post - R Level of Political Info	,349	,009
y1984	,371***	,414
y1992	,042	,662**
y1996	,074	,579**
y2000	,237	,216
Respondent Age	-,008	-,013
Agesqr	5,739E-5	9,606E-5
Respondent Gender	-,313***	-,210
Respondent Race 2-category	-,324**	-,290
Political South/Nonsouth	,058	-,040
Family Income	,072	-,014
Church Attendance 6-category [1 of 2]	,037	,064
Home Ownership by R Family	,087	,001
Marital Status of R	,126	-,024
infoXz1984	-,029***	-,676**
infoXz1992	-,534	-,746**
infoXz1996	-,013	-,739**
infoXz2000	-,367	,024
InfoXage	,019	,033
InfoXagesqr	,000	,000
InfoXmale	,433***	,185
InfoXblack	,160	,392
InfoXsouth	-,135	,183
InfoXincome	-,054	,082
InfoXrel	-,087**	-,076
InfoXhome	,018	-,065
InfoXmar	-,073	,105
Intercept	5.414***	5.339***
R^2	0.049	0.061
Model fit (sig of F test)	0.00	0.00
N	3339	1294

***denotes p<0.01, **p<0.005, standardized coefficients reported, standard errors in parenthesis

Appendix 6: Results of OLS regression used to computed the difference in objective proximity between the candidate the respondent voted for and the opposite candidate

	Objective ideological proximity	Objective issue proximity
Post - R Level of Political Info	,044	,381
y1984	,**3**39	-,126
y1992	,399	-,018
y1996	,236	2,082**
y2000	,620	-,229
Respondent Age	-,021	-,011
Agesqr	,000	2,009E-5
Respondent Gender	-,199	,131
Respondent Race 2-category	,885***	,592
Political South/Nonsouth	-,117	-,163
Family Income	,077	-,154
Church Attendance 6-category [1 of 2]	-,082	,044
Home Ownership by R Family	,087	,191
Marital Status of R	,051	-,150
infoXz1984	-,998***	,029
infoXz1992	-,285	,000
infoXz1996	-,146	-,698
infoXz2000	-,755	-,575
InfoXage	,058	,098
InfoXagesqr	,000	,047
InfoXmale	,385	-,698
InfoXblack	-1,025***	-,575
InfoXsouth	,145	,098
InfoXincome	,008	,047
InfoXrel	-,009	,084
InfoXhome	-,293	-,322
InfoXmar	-,108	,341
Intercept	.358	4.95
R^2	0.059	0.229
Model fit (sig of F test)	0.00	0.00
N	3257	1298

***denotes $p<0.01$, **$p<0.005$, standardized coefficients reported, standard errors in parenthesis

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