Information, Elections and Public Policy in a Rational Choice Perspective

Valentino Larcinese[*]

Department of Government and STICERD
London School of Economics and Political Science[**]

November 2006

Abstract

Does the availability and quality of political information affect election outcomes and, ultimately, public policy? The answer to this question depends on the answers we provide to a number of related questions. How do elections relate to public policy making? Do citizens acquire and process political information for voting? Does information affect voting behaviour? Even if it does, is this enough to change election outcomes? Political scientists and, more recently, economists, have provided a number of tools and models to explore possible answers to these questions. This paper surveys some of this literature and the related, limited, empirical evidence. We conclude that there are many good reasons to expect an influence of political information on public policies and that future efforts should devote more attention to empirical research and data collection.

1. Introduction

How well do elections serve the purpose of linking citizens' preferences and public policy? The answer to this question depends on the functioning of democratic institutions. As proved by Arrow[1] in 1951, it is impossible to aggregate a given set of individual preferences into a collective choice using a decision-rule that satisfies some minimal consistency and procedural requirements. Thus, institutions matter. The same set of preferences can be aggregated in a number of different ways and the final outcome inevitably depends on the rules of the game.

The formal literature on elections has therefore devoted most efforts to understand the impact on policy of both preferences and institutions, placing restrictions on either or both in order to gain predictive power. Most of this literature seems to take for granted that citizens have enough knowledge of political institutions, electoral platforms and the consequences of given policies, to be able to pursue their interest in the electoral process. The potential role of information is, in some cases, simply ignored. This is at odds with the common recognition that information plays a key role in decision-making. The link between preferences and behaviour is mediated by beliefs about the external world and about other agents. In the same way, the link between preferences and public policies is mediated not only by institutions, but also by the knowledge people have of political and economic matters.

In reality, citizens often appear to have little competence of political matters. Since the origins of democratic forms of governance, political theorists have often supposed that citizens lack adequate knowledge to govern themselves wisely. Plato, for example, claimed that in the "good republic" ultimate power should only be

---

[1] Arrow (1951).

given to "philosophers", people with the competence to understand where the public good lies and how to reach it. Aristotle was also sceptical about individuals' civic capabilities, but less so about democracy in itself: "There is this to be said for the Many. Each of them by himself may not be of a good quality; but when they come together it is possible that they may surpass - collectively and as a body - the quality of the few best"[2]. The question of whether a group of poorly informed individuals can take good collective decisions is still today one of the most intriguing and debated in political science.

Scepticism about the civic virtues of citizens has survived until very recently. Restrictions to civil rights are common to all democracies, where, for example, people are not entitled to vote before a certain age. Less justifiably, restrictions have been in place until quite recently against women, some racial groups, or people with low income or educational attainment. It is only during the XX century that universal suffrage has become accepted as one of the main features of proper democratic governance.

While very few today would express doubts that the ultimate power in a community should be with the whole body of its citizens, the question of the role of political information in elections has become more crucial than ever. An extensive body of empirical research conducted in the last fifty years confirms that the general public is often poorly informed about political issues. Moreover, there are systematic correlations between being economically endowed and being politically informed. Also, the level of participation in democratic life shows a strong correlation with characteristics such as income or education.

---

[2] Aristotle, *The Politics of Aristotle*. Trans. by E. Barker (Oxford: Oxford University Press,1946), p.123.

Hence, the role of information in democracies is the object of a very open debate. On the one hand, it is possible to argue that information is essential to good decision-making and that therefore the levels and distribution of political knowledge affect both the accountability of public officials and the distribution of political influence. On the other hand, little information could be irrelevant or almost so. This has been argued along two lines: the "behaviour irrelevance" advocates claim that, for a variety of reasons, uninformed voters manage to vote as if they were informed; the "outcome irrelevance" champions, instead, argue that uninformed voters do behave differently, but that the final electoral outcome is the same that a perfectly informed electorate would choose. Each of these views clearly carries its own policy and normative implications. The debate seems very open and very different views have been expressed along the centuries, as well as in the last ten years.

2. Perfect information?

Beginning with Downs, most formal models of electoral competition assume that citizens are perfectly informed[3] about either the announced platforms or the candidates' tastes and competence, or both. Voters are also capable of perfectly predicting the effects of different policies, a capability many policy-makers would be very happy to share with them! It has to be said that, although the standard Downsian model assumes that everyone is perfectly informed and votes, Downs himself was aware of the paradox of rational political participation. In a sizable electorate "the returns from voting are usually so low that even small costs may cause many voters to abstain"[4]. The same applies to political knowledge: "a rational man can become well informed for four reasons: 1) he may enjoy being well informed for its own sake, so

---

[3] For exceptions see Ledyard (1984) and Palfrey & Rosenthal (1985).
[4] Downs (1957).

that information as such provides him with utility; 2) he may believe the election is going to be so close that the probability of his casting the decisive vote is relatively high; 3) he may need information to influence the votes of others (...); 4) he may need information to influence the formation of government policy as a lobbyist. Nevertheless, since the odds are that no election will be close enough to render decisive the vote of any one person, or the votes of all those he can persuade to agree with him, the rational course of action for most citizens is to remain politically uninformed" (Downs, 1957). Hence, it should not be surprising that voters remain rationally ignorant.

The first systematic evidence of political ignorance came from the public opinion studies conducted between the 1940s and the 1960s. From their study on the 1952 and 1956 elections, Campbell et al. conclude that the electorate "knows little about what government has done (...) or what the parties propose to do. (...) The mass electorate is not able to appraise either its goals or the appropriateness of the means chosen to serve these goals" (Campbell et al., 1960, 543). Converse (1964) found that only 10 per cent of the interviewed could define the meaning of words like "liberal" or "conservative". More recent studies confirm these conclusions. According to Neuman (1986), "even the most vivid concepts of political life (...) are recognized by only a little over half the electorate".

Evidence on what voters know is not more encouraging. Delli Carpini and Keeter (1996) report that during the 1992 presidential campaign "86 per cent of the public knew that the Bushes' dog was named Millie, yet only 15 per cent knew that both presidential candidates supported the death penalty". Going beyond anecdotic evidence, they report that "only 13 per cent of the more than 2000 political questions examined could be answered correctly by 75 per cent or more of those asked, and

only 41 per cent could be answered correctly by more than half the public". Political knowledge also shows a remarkable stability over time: "in spite of an unprecedented expansion in public education, a communication revolution that has shattered national and international boundaries, and the increasing relevance of national and international events and policies to the daily lives of Americans, citizens appear no more informed about politics" (Delli Carpini and Keeter, 1996).

However, this is not evidence *per se* of a lack of motivation (as Downs' theory would suggest). Key (1966) suggested that voters are as informed as the political context allows them to be, in the sense that often candidates are vague and not neatly distinguishable on specific issues. For example, a number of studies conducted during the 1960s and the 1970s show an increase in political knowledge compared to previous decades, probably related to the events occurred at the time and the consequent radicalisation of electoral platforms (Pomper, 1972; Nie, Verba, Petrocik, 1976).

When the context, as well as other factors, is taken into account, it is not clear if this evidence should be regarded as people having "too little" information or "too much". Indeed, according to Downs, we should expect the electorate to know even less than they seem to know. In general, learning requires motivation, ability, and opportunity. When we observe a given level of knowledge, little can be said about its determinants: a limited knowledge of politics can be due to a lack of individual interest, to poor ability, or rather to environmental circumstances that affect the opportunity to learn. Hence, the role of electoral campaigning and mass media cannot easily be ignored.

Research in this direction started in the period between the two World Wars, under a general presumption that mass communication was an extraordinarily

powerful device: "it is no daring prophecy to say that the knowledge of how to create consent will alter every political calculation and modify every political premise" (Lippman, 1922). These theories go now under the name of "theories of mass propaganda": use of the media for political propaganda was quite common at the time both by authoritarian regimes and by the Allies during the war. However, the first systematic study conducted on survey data by a group of researchers at Columbia University seemed rather disappointing. Lazarsfeld, Berelson and Gaudet (1944) studied the Eire county during the 1940-44 American elections, finding little evidence in favour of the theories of mass propaganda: "The people who did most of the reading and listening not only read and heard most of their own partisan propaganda but were also most resistant to conversion because of strong predisposition. And the people most opened to conversion - the ones the campaign manager most wanted to reach - read and listened least" (Lazarsfeld et al. 1944). The influence of the Columbia school (also through a subsequent work by Berelson, Lazarsfeld and McPhee, 1954) was such that since then the dominant view has been that campaigning and the media have only "minimal effects" on voters. Until quite recently, most studies continued to find little evidence of persuasion by mass media (Finkel, 1993).

More recent research, however, has shifted its focus from a generic "media effect" to a more sophisticated understanding of the types of effects. In particular "the news can be expected to influence public opinion directly through three main avenues: enabling people to keep up with what is happening in the world and mobilizing them to vote (civic engagement), defining the priority of major political issues (agenda setting), and shaping people's political preferences (persuasion). In turn, these attitudes can be expected to influence reasoned voting choices" (Norris et al., 1999). Iyengar and Kinder (1987) examine evidence from electoral campaigns and

television news and conclude that their effects have not much to do with persuasion but rather with "commanding the public's attention (agenda-setting) and defining criteria underlying the public's judgement (priming)"[5].

Bartels (1993) shows how apparent "minimal effects" can be, at least partially, a consequence of measurement errors. Zaller (1992 and 1995) argues that tangible effects are only due to the "reception gap", the difference between the amounts of information received about different candidates. According to Zaller, most studies have been conducted on presidential elections, where the campaign is normally quite intense on both sides, with plenty of information on both candidates: this generates a minimal reception gap and therefore minimal effects, which is different from arguing that the campaigns had no effect. In local elections, where the reception gap between incumbents and challengers is normally much larger, the impact of the media appears instead sizeable.

It is useful at this stage to try to be more precise about what we intend for political knowledge. "Everything is politics" was a successful slogan in the seventies: this would imply that any knowledge is political knowledge. Even if our idea of electoral politics is that, luckily, not everything is politics, nevertheless the range of issues and facts that are relevant to politics is extremely large. How can we gauge political knowledge? Delli Carpini and Keeter (1996), in presenting evidence on political knowledge of American voters, based their analysis on nearly 3700 questions collected in various surveys. They concluded that "researchers developing national or general political knowledge scales need not be overly concerned with the mix of specific topics covered by individual items. Scales made up of items tapping only knowledge of institutions and processes, substantive issues, or public figures are

[5] Bartels (1988), Zaller (1989), Popkin (1991), and Franklin (1991) find similar results. For the original formulation of the agenda-setting hypothesis see McCombs and Shaw (1972).

likely to serve as reasonable measures of the overarching construct"[6]. This is an extremely important point. Most empirical research on the impact of information in elections is based on a limited set of questions and relies on the assumption that correct answers to such questions are correlated with knowledge of other issues too. Nevertheless, it is worth noting that some voters tend to be "specialists": instead of being broadly informed about the main political issues, they learn only about issues that are of direct relevance to them. Delli Carpini and Keeter report that blacks were more informed than whites on racial issues and females more informed on gender-related issues (in spite of both blacks and females being less informed than average on other issues).

Another important fact about the distribution of political knowledge is its clear relation with a number of observable individual characteristics like education, gender and race. A number of possible explanations can be given to such a relation; these range from resource availability (to buy and process information) to historical exclusion of some groups from political life, which results in a lack of civic capacity[7].

To understand the causes of this unbalanced distribution represents the first step towards finding the way to promote more effective political equality. This is especially important if we think that the consequences of such unbalances are likely to be transferred into the area of public policy-making, where some groups could find more adequate representation than (and even at the expense of) others.

3. Information and voting behaviour

A good starting point to understand the relationship between information and public policy is the impact of information on voting behaviour. Recent literature in

---

[6] Page 174.
[7] For further evidence and discussion of this phenomenon see Delli Carpini & Keeter (1996; 135-177).

both economics and political science has contributed towards this aim. A number of theoretical studies have focussed on political participation, showing that having more detailed knowledge of candidates' characteristics and proposals could increase the chances of participating in political life by increasing the utility associated with electoral choices. In the context of elections, participation has mainly been identified with turnout. At the same time, it has also been argued that information might increase the "quality" of participation, and a second stream of studies has tried to understand whether better informed citizens are more responsive to electoral platforms, can be expected to take better decisions, and therefore to extract better outcomes from the political process[8].

4.1 Information and participation

Two broad attitudes towards participation can be found in contemporary democratic theory[9]. On one side, champions of participatory democracy like Russeau or John Stuart Mill tend to associate the quality of democratic governance in a polity with the degree of participation of its members in the decision-making process[10]. In representative democracies this would require a population that is well informed, participates in electoral meetings, stimulates and criticizes public officials, and turns out to vote in elections in large numbers. On the other side, proponents of a more limited notion of participation, like Schumpeter and Sartori, see citizens better placed as "controllers" of public officials than as directly taking part in decision-making[11]. In

---

[8] These two aspects of the influence of information on voting are not disjoint. Participation is related with responsiveness, and it is an aspect of voters' response to candidates' proposals. We make this distinction for exposition purposes, and because most literature have dealt with the two quite separately.
[9] See Pateman (1970).
[10] See Russeau (1762) and Mill (1835 and 1861).
[11] See Schumpeter (1942) and Sartori (1987).

this case high turnout rates are not necessary: the success of the system is only judged by its policy outputs.

An important question, even for advocates of the second model, is whether high participation rates increase the quality of control imposed on elected representatives. This is an empirical question, and as such needs to be studied by linking positive models of elections and electoral behaviour with data analysis. Any attempt to answer this question cannot escape considering the role of information in elections. If participation comes out of misunderstanding, propaganda or legal obligation then there is no need for it to improve the quality of governments. In fact, most scholars would agree that information aggregation requires at least "some" citizens to be informed, although they may disagree on the "some".

Many empirical studies have established a strong correlation between electoral turnout and a number of individual and systemic characteristics. Wolfinger and Rosenstone (1980) show that turnout is strongly predicted by a number of individual demographic variables. Education typically displays the highest influence, followed by income, age, marital status, and occupation. These results have been systematically confirmed by most subsequent studies, independently of the particular election examined. In addition, a number of studies have also shown that disposition variables such as party identification, sense of civic duty, and so on, affect the level of participation. Systemic characteristics also play a role: in particular, election closeness, registration laws, and local socioeconomic conditions[12] (average income, unemployment rate etc.).

Is it possible to link stylized facts about turnout in a coherent theory grounded on rational use of information? There are still only few attempts to formalize this

---

[12] See for example Patterson and Caldeira (1983), Cox and Munger (1989) and Leighley and Nagler (1992).

causal link. Ledyard (1984) presents a model of spatial electoral competition where voters are uncertain about the preferences and the cost of voting of other voters, and where abstention is admitted. Voters play a Bayesian game taking as given the two candidates' positions. Turnout would be positive for differentiated candidates' positions; electoral competition, however, leads candidates to convergence and this drives the equilibrium turnout to zero. Although Ledyard introduces turnout and asymmetric information in spatial models, his purpose was not to explain how information affects turnout.

Feddersen and Pesendorfer (1996) consider a population where the level of information about relevant states of the world is exogenously determined. They consider two fixed alternatives (A and B) and two states of the world 1 and 2. Some voters always prefer A and some B independently of the state of the world (partisans), while others (independents) prefer A in state 1 and B in state 2. Some agents receive (costless and randomly) a message about the state of the world and this exogenously divides the population between informed and uninformed voters. At this point a decision on whether to implement A or B is taken by majority voting. In this model agents understand that their vote only matters if it is pivotal, therefore voting choice is conditional on the event of being decisive in the election. Non-informed independent voters have an incentive to delegate their vote to the better informed to increase the chances of an informed aggregate decision: delegation is via abstention, which increases the probability of any informed independent voter to be pivotal. An important assumption of this model is that all independent voters share the same objective function: thus, in delegating the decision to other independent voters no one incurs the risk of leaving the decision to people with different tastes. Moreover,

partisans play a merely passive role: what matters in the model is only their (uncertain) number.

Feddersen and Pesendorfer (1999) generalize this model in several directions: first, agents are spread continuously across the political spectrum rather than sharing common values within groups; the candidate's quality index is not limited to two possibilities, so that partisanship can be (to a certain extent) traded off with quality; finally, the level of information held by voters can also vary and there is no presumption that a subset of voters is perfectly informed. However, some agents get noisy signals about the candidates' quality and this divides the population between those that have updated information and those who know only the ex ante probability of various quality realizations. This model finds again that more informed voters are more likely to vote than less informed ones. However, and quite surprisingly, increasing the fraction of informed voters in the population results in increased abstention.

Direct evidence[13] on the link between information and turnout is still very limited. Delli Carpini and Keeter (1996), using data from the 1988 NES Survey, show that political knowledge is a good predictor of electoral turnout, controlling for a number of individual characteristics. Sanders (2001) presents evidence on the 1996 US presidential election and shows that perceived uncertainty about candidates is related to turnout. This effect is also linked to preference intensity.

Taking information as given in a model of turnout neglects the incentives that people face in acquiring information. In theoretical terms, if we think it is appropriate to use rational choice theory to explain voting behaviour, then it is legitimate to expect voters to apply rational calculus in the phase of information

---

[13] I.e. evidence not based on variables that are only correlated with information, like education.

acquisition. This means that citizens are not just randomly informed and that, as an abundant empirical literature makes clear, political knowledge is correlated with a number of other individual characteristics that ultimately affect political preferences (e.g. income).

On empirical grounds such limits are not less serious: when estimating a turnout equation having indicators or proxies of political knowledge on the right hand side there is a serious possibility of capturing a spurious correlation[14]. A number of unobservable variables might affect both information acquisition and political participation and simple regression could deliver biased coefficients. Thus, a theory of information acquisition is also necessary in order to overcome this problem, as it can provide the appropriate instrumental variables for political knowledge.

Endogenous information is introduced in Matsusaka (1995), who presents a decision-theoretical model of costly information acquisition and turnout. The utility from changing the election outcome is higher when the voter is more confident that she is voting for the candidate she actually prefers. Information, through Bayesian updating, increases such confidence and therefore also makes citizens more likely to vote. Matsusaka goes further by relating his results to a number of empirical regularities found in previous studies. Education and age, for example, reduce the cost of acquiring information and are therefore positively correlated with turnout; so does campaign spending or being contacted by a campaign worker before an election.

A theory of information acquisition should also consider that ideology may have an impact on incentives to learn.[15] Voters do not share common priors on

---

[14] Delli Carpini and Keeter (1996), for example, suggest that "the existence of a strong interdependence between knowledge and participation has an important practical implication: efforts made to boost one of these will, in all likelihood, benefit the other". This is a potentially wrong conclusion derived by interpreting correlation as causality.

[15] There are a number of reasons, for example, that may induce people to expose themselves to information sources they trust, thus with their same ideological bias. Berelson et al. (1954) and a

candidates. Thus, ideology can affect voters' knowledge of political matters and influence participation twice: directly, as it affects the perceived difference between candidates, but also indirectly, through its effect on the acquisition of political information. A model along these lines is presented in Larcinese (2005a). Information acquisition is modelled as an individual production activity, whose inputs are mass media and time, and where ideology enters in the form of prior beliefs about candidates. This model predicts that information increases the likelihood of turnout for voters who are sufficiently independent, in the sense of not having a strong prior preference for one of the candidates. Information demand turns out to be a non-monotonic function of ideology: the voters with the lowest incentives to acquire information are those with the weakest (indifferent) and the strongest (partisan) prior beliefs. The best informed citizens are instead those who moderately support one of the candidates[16]. Larcinese (2007a) provides evidence on the impact of information on voter turnout. By using appropriate instrumental variables, it is possible to show that the positive correlation between political knowledge and turnout has a causal component and therefore information affects the probability of turnout in a precise sense. The instruments that have been used are proxies of information supply in mass media, which suggest that the media can play an important role in fostering political participation[17].

4.2 Information and responsiveness

Are better informed voters more responsive to electoral platforms than less informed ones? If the answer is yes then electoral competition should tend to deliver

---

number of subsequent studies found that voters practice selective exposure to information, for example simply paying more attention to information that is favourable to their own views.

[16] These theoretical results are then tested, with good results, using survey data on the 1997 U.K. general election.

[17] Evidence from a natural experiment is presented by Lassen (2005).

policies that are more favourable to the informed; this is especially relevant as political awareness is often correlated to a number of variables that also tend to be related to policy preferences.

An alternative possibility is that uninformed voters manage to behave as if they were informed, thus again making information not too relevant in terms of electoral outcome. A vast literature, using different arguments and models, argues that citizens use heuristics that are both sufficient to make reasoned choices and cost effective. Sniderman, Brody and Tetlock (1991) define heuristics as "judgmental shortcuts, efficient ways to organize and simplify political choices, efficient in the double sense of requiring relatively little information to execute, yet yielding dependable answers even to complex problems of choice".

Using spatial models of elections, a number of papers[18] show that it is possible for imperfectly informed voters to emulate the behaviour of the better informed ones when they receive a credible signal from a source whose preferences are known. Sobel (1985) shows how informative equilibria may arise from repeated interactions when the information provider is initially not perfectly credible. It is then clear that if party platforms tend to be consistently tied to the interests of specific socioeconomic groups, then party identification can provide a simple and effective way to vote instrumentally.

In the context of heuristic decision-making, parties, pressure groups, opinion leaders etc. transmit simple and effective information to voters. Popkin (1991) argues that candidates' positions on most issues are correlated between them or to other variables. Therefore, it is only necessary to be aware of candidates' stands on few variables to make accurate inferences on the whole spectrum of issues and

---

[18] See Calvert (1985), McKelvey & Ordeshook (1984), Grofman & Norrander (1990) and Lupia (1992).

correctly estimate expected utility of voting for each candidate. Wittman (1995) argues that voters' costs of becoming informed have been vastly exaggerated; in particular, the returns to political entrepreneurs and lobbyists give them enough incentives to make information available to voters, leaving these with little or no cost to bear. Moreover, following an analogy with markets, Wittman stresses that competition among these advisers, ensures that voters get enough information to take the right decision.

Lupia and McCubbins (1998) focus on the role of institutions as "informational crutches": "it is not enough, for the success of democratic delegation, that institutions alter the incentives of democratic agents. Rather, it is also necessary that the incentive-altering effects of institutions make agents and speakers trustworthy and that democratic principals perceive institutions to have this effect. (...) Democratic institutions can, in this way, establish the conditions for persuasion, enlightenment, and reasoned choice". If clarity of interests, threat of verification of signals, penalties for lying and costly effort are all elements that the literature on signalling and cheap talking has identified as important for signals to be informative, then institutions that increase them will also increase the amount of information that citizens can extract from simple cues like party affiliation, endorsements, campaign spending.

Evidence on the use of shortcuts by voters has been provided by Brady and Sniderman (1985): using the US National Election Study, they show that voters tend to infer the relationship between what candidates prefer and their own preferences from information provided by particular trusted groups. McKelvey and Ordeshook (1984) provide experimental evidence on the use of polls about the opinions of groups whose interests are known. Lupia (1994) analyzes a survey of five complex insurance

reform initiatives in California to conclude that "access to a particular class of widely available information shortcuts allowed badly informed voters to emulate the behaviour of relatively well informed voters".

Other scholars, however, are less optimistic about the capability of badly informed voters to act instrumentally. Mondak (1994) points to experimental evidence on the higher likelihood of mistakes by agents that use simple heuristics. More direct evidence against the "equivalent behaviour" hypothesis is provided by Bartels (1996): using the National Election Study surveys conducted for six US presidential elections, he finds that uninformed voters "do significantly better than they would by chance, but significantly less than they would with complete information, despite the availability of cues and shortcuts". In general, it is still possible to argue that more information is better even in the context of simple heuristic decision making. This point is made clear by Delli Carpini and Keeter (1996): "The distinction between the 'civic knowledge' and the 'heuristic' schools is less sharp than often supposed. (...) The use of shortcuts describes a human condition rather than a particular form of decision-making. The issue then, for both schools of thought, is not whether we use partial information to make political decisions, but the reliability and validity of the specific information we do use".

In short we can say that the heuristic decision-making argument shows that observed levels of political knowledge are not necessarily alarmingly low, as many scholars tend to assume. Nevertheless, the argument that democracy works well with little information seems better applied in cases where accountability is at stake: if instead different principals have different preferences then the issue is not just one of control over delegates but also one of redistribution. Other things equal (i.e. verifiability conditions, penalty for lies etc.) it is likely that more information can be

extracted from the same environment by certain groups rather than others. Given that knowledge of others' preferences, interests, and competence is necessarily imperfect, political knowledge and its distribution is very likely to affect final electoral outcomes.

4. Consequences for public policy

Concluding this survey, we come back to the original question: does political information affect public policy-making through its impact in elections? As we have tried to clarify so far, the answer to this question should depend, among other things, on whether political knowledge affects voting behaviour. However, it is also possible to argue that information has no effect on policies in spite of having an effect on voting behaviour. Formal models of elections have identified mechanisms through which the lack of detailed information by some (and even many) voters has limited impact on aggregate choices. The simplest possible way is to assume that uninformed voters make mistakes which are just white noise in the election process. In other terms, if uninformed voters have equal probability to make mistakes in any direction, then this should not affect majority voting outcomes. This is a simple way to obtain "full information equivalence", i.e. the possibility for a majority system to aggregate individual pieces of information into the same final outcome that a perfectly informed population would choose. As we have seen, this idea can be dated back to Aristotle; Condorcet (1785) and recent formal models of collective decision-making have clarified the conditions required for this to happen[19]. Problems with this argument,

---

[19] Condorcet (1785) considers a population of imperfectly informed agents with a common objective function having to choose the best of two outcomes by majority rule. He shows that the probability of a correct choice increases with the population size. See also Young (1988) and Austen-Smith and Banks (1996). Feddersen and Pesendorfer (1998) show how the possibility of having full information equivalence depends on the decision rule: unanimity, for example, decreases the chance of having an informed collective choice.

however, arise if errors are correlated: if, for example, there is systematic bias in press coverage, then it seems more likely for voters' mistakes to be concentrated on some specific options. In this case, differently from Condorcet, the population size does not help in cancelling out errors[20]. Feddersen and Pesendorfer (1996, 1997 and 1999) have been extremely influential in supporting full information equivalence. Conditioning on the event of being decisive reveals a lot of information to uninformed voters. Hence, although behaving differently from the informed[21], the uninformed manage to get their preferred policy by being adequately sophisticated.

The relevance of these conclusions to the study of real-world elections can be seriously questioned. Margolis (2001 and 2002), for example, is very sceptical: "results are contingent on a combination of very specific common knowledge interacting with an effectively leak-proof arrangement of socially relevant but strictly private information"[22]. The logic of Feddersen and Pesendorfer can be pushed to cases where only one informed voter would be enough, in a symmetric equilibrium, to deliver the right choice. However, for information aggregation to occur, at least some information must be available: to be able to act strategically, the "uninformed" voters need accurate prior knowledge about other agents' preferences and distribution, which is more than one could expect from voters in an election. On top of this, at least some voters (the informed) should receive informative signals. Finally, in this literature the reliability of signals is not questioned: in real elections voters have virtually never the possibility to get first hand information as everything is filtered by opinion leaders, organizations, and, above all, the media; in real elections we definitely lack an objective and universally trusted signal. When signalling can be strategic, cheap talk

---

[20] Berg (1993).

[21] Uninformed voters are more likely to strategically abstain to increase the probability of an aggregate informed decision. Also, the uninformed are more likely to vote against their signal if they cannot abstain.

[22] Margolis (2002).

games show how a commonality of interests with the signaller (and therefore some knowledge of her preferences) is a condition to get informative equilibria.

The impact of citizens' political knowledge on public policy depends not only on how it affects their voting behaviour. Asymmetric information changes the incentives faced by politicians in designing electoral platforms and in delivering the promised policies. It can be useful on this point to distinguish between two dimensions that concern the link between elections and policies. The first, which can be called "vertical conflict", concerns the capability of electoral processes to select the best candidates and then make elected representatives accountable to other citizens. The centre of attention is on the conflict between the interest of decision-makers and that of the polity. Elections, in this case, serve as screening and disciplining mechanisms; the perspective of future elections should provide incentives for decision-makers not to abuse of their power for private purposes.

The second dimension is one of "horizontal conflict". Citizens have different preferences for public policies and this is a conflict that cannot be solved by voluntary exchange and the price mechanism. Therefore, if and when a public decision is reached, it is binding for everyone. The conflict among different preferences must be solved by centralized decisions that inevitably involve some form of (implicit or explicit) redistribution.

A good framework for examining accountability of public officials is the agency model. Since Barro (1973) and Ferejohn (1986), agency models have been used to study the incentives faced by an incumbent (agent) to provide the policies preferred by citizens (principals). Examples of applications of agency models to politics include policy manipulation for re-election purposes (Harrington, 1993), political business cycle (Rogoff, 1990), yardstick competition in tax setting (Besley

and Case, 1995a), and the form of transfers to special interest groups (Coate and Morris, 1995).

The main conclusion in this class of models is that the perspective of being re-elected reduces the rent extracted by incumbents in equilibrium. This is what Banks and Sundaram (1999) call the "performance effect". There is also a "selection effect", in the sense that not all agents are equally likely to be re-elected: good types (more competent or with preferences closer to those of the citizens) have generally a better chance to be confirmed in office. Besley and Case (1995b) use data on gubernatorial administrations in the US to provide evidence in support of the first of the two effects[23]. Hence, elections are, at least to a certain extent, a good device to affect public policy in the direction desired by the majority of citizens.

Recent theoretical and empirical research has also tried to disentangle the role of mass media in making public officials accountable to citizens. In Besley and Prat (2006) the media (a number of competing outlets) can derive their revenue from two sources: audience (and therefore advertising) and a transfer from government (in the form, for example, of favourable regulation) in exchange for silence on possible bad news about the incumbent. More outlets accepting the deal with the government mean a larger potential audience from breaking news for the non-captured outlets. Therefore, to keep every outlet silent, the government must pay each of them as if it was the only one that could break news. Hence, a rise in the number of outlets makes it more expensive for the government to capture the media. Since in equilibrium the government can only either pay everyone or nobody (just one outlet breaking news is enough for the citizenship to be informed), increasing the number of outlets renders less likely the possibility of media capture. Media pluralism is, therefore, good for

---

[23] Governors face a term limit of two mandates. Therefore, in each given moment there are governors facing the perspective of elections and "lame ducks" that will terminate their service. Besley and Case find evidence of different behaviours in the two cases.

information availability. Besley and Prat also provide cross-country evidence by linking foreign media ownership with corruption indices. A foreign owner can be less prone to be captured because, for example, he has less economic interests under government's regulation: this increases the transaction cost of transfers. Djankov et al. (2001) find that the number of state owned newspapers is also a good predictor of corruption. Besley and Burgess (2002) provide evidence on Indian states responsiveness to calamities and find that this is associated with the circulation of newspapers and electoral turnout. This idea dates back to Sen (1981, 1984) who pointed out the role that newspapers can play in preventing famines, by increasing citizens' awareness and therefore government activity in prevention.

It is interesting to note that even advocates of "limited information politics", like Lupia and McCubbins, agree on the role of the media, and include them among the "informational crutches" that allow ordinarily (i.e. little) informed citizens to make the right choices: "the existence of a free press increases the likelihood that campaign statements will be verified. While competition can create multiple potential verifiers, freedom of the press provides these verifiers with an avenue whereby they can provide public verification of political statements. (...) These institutional features can increase the threat of verification and can thus increase the likelihood that voters will be capable of reasoned choice"[24].

Coming to the horizontal conflict, the link between information and policy is driven by voters' responsiveness to electoral platforms, which implies that both are able to distinguish the most favourable proposals and to turn out to vote for them. "The very groups who are disadvantaged economically and socially are also less politically informed and, thus, disadvantaged in the struggle over the political

---

[24] Lupia and McCubbins (1998).

allocation of scarce goods, services, and values. (...) The more informed one is, the more likely one is to send clear, policy-oriented messages to political elites (...). To the extent that political elites respond to such signals - a central tenet of any theory of representative democracy - informed citizens are likely to have their concerns taken more seriously"[25]. Empirical evidence tends to show that turnout is often the transmission chain of this mechanism. First, voters and non-voters systematically differ in their socioeconomic and demographic characteristics and therefore in their needs and policy preferences[26]. Second, most evidence suggests that "low voter turnout means unequal and socioeconomically biased turnout"[27]. Thus, turnout levels should affect policy outcomes.

Empirical evidence that aggregate turnout is a predictor of welfare spending has been provided by Peterson and Rom (1989) for US states and Hicks and Swank (1992) for industrialized countries. Lindert (1996), analysing a panel of OECD countries, finds that "a stronger voter turnout seems to have raised spending on every kind of social program, as one would expect if one assumed that the social programs cater to the lower income groups whose voter turnout differs most over time and across countries". Larcinese (2007b) provides a rationale for the impact of turnout on social spending within the Downsian framework and provides panel data evidence from 41 countries that higher turnout levels increase social spending; this result is robust to the introduction of state fixed effects. Hill and Leighley (1992) and Hill, Leighley, and Hinton-Andersson (1995) use US survey data to derive aggregate measures of turnout by social class and combine them with state-level data to provide direct evidence of the effect of lower-class mobilization on welfare spending. Using US state-level data for the years 1950-1988, Husted and Kenny (1997) show how the

---

[25] Delli Carpini and Keeter (1996).
[26] Wolfinger and Rosenstone (1980), Verba et al. (1993).
[27] See Lijphart (1997).

extension of the voting franchise (thus favouring participation by the poor and the minorities) has caused an increase in welfare spending, leaving all other spending unaffected. If, as we have seen, political knowledge affects political participation, then we are facing more than a presumption of the impact that information could have of public policy.

Larcinese (2005b) presents a model of the impact of information on income redistribution. This paper focuses on individual incentives to acquire information arguing that, even when the probability to cast a decisive voter is virtually negligible, voters have private incentives to be informed about politics. Monitoring of current policy and expectations over future policies can be very useful for a number of private decisions like financial investments, choosing between public and private health care, or the choice of a pension scheme. Thus, political information can have purely private returns. Since, under quite mild assumptions, information demand is increasing in income[28], office-seeking politicians should give a higher weight to rich voters in their objective function and redistribution should therefore be less than what predicted by Downsian models with perfect information. Moreover, and in opposition to what most literature takes for granted, greater inequality in gross income distribution is neither necessary nor sufficient for more redistribution; inequality increases the redistributive desire of the median voter but also the political weight of the rich, leaving the net effect undetermined. Finally, the model shows that increases in the cost of information are particularly harmful for the poor, in the sense that they reduce redistribution.

Another source of differentiated influence on the electoral process can be the mass media. This mechanism is studied by Stromberg (2004a): mass media derive

---

[28] This conclusion is empirically supported by the findings of Larcinese (2007c).

their revenue from advertising and some people are more valuable than others to advertisers (those who tend to consume more, like the richer, better educated, younger etc.). Hence, these people are targeted by the media and office-seeking politicians also design policies more favourable to media users who are more likely to be informed on platform proposals. Equilibrium policies can therefore be substantially altered by the functioning of the media market, independently of any ideological bias that the media could possibly throw into the electoral battlefield[29]. Stromberg (2004b) also provides evidence of this effect from the New Deal relief programme implemented in a period of rapid expansion in the use of the radio. He finds, controlling for variables that account for the needs of different counties, that the radio had a large and significant impact on funds allocation.

To conclude this section, it seems fair to claim that new research is increasingly providing both theoretical rationales and empirical evidence on the effects of the information market on public policy-making. Although much is still to be done to gauge the impact of information on public policies, current results seem to show promising avenues for future research on the interactions between media markets, institutions, and the incentives provided by democratic political competition. This should lead to a better positive theory of public policy-making and, in perspective, to new normative implications.

5. Conclusion

Information plays a key role in decision-making. Decisions taken in the political market of democratic systems make no exception, and crucially rely on information availability and its quality. For a number of different reasons, good

---

[29] Larcinese (2007c) provides evidence supporting most of the Stromberg's results.

information is important for policy-makers, for candidates, for lobbies, and for the common citizen. This article summarizes some of the main findings in this growing research field, trying to put contributions from different social sciences in the context of the political economy research agenda.

A number of important questions deserve better answers than those we can provide today. How electoral rules affect information acquisition and information transmission during electoral campaigns? Can the concentration of media in few hands affect election results? What is the impact of state-owned media on the information market? Such questions are not just a theoretical curiosity: they are somehow central in many countries' current debates on electoral reform and mass media regulation.

The possibility to answer these and many more questions depends on advances in a number of other grounds. Theoretical research is slowly incorporating imperfect information in electoral models, unveiling a number of previously ignored effects of electoral competition. These can be particularly interesting when coupled with the insights offered by new models of electoral competition that consider a multidimensional policy space. At the same time, this trend in theoretical literature is only beginning to affect empirical research. Many questions are still waiting to receive the attention they deserve. This will hopefully stimulate new data collection on information and elections. It seems fair to say that our understanding of the impact of information on public policy is severely constrained by limited availability of adequate data. One of the main tasks of future research should be to close this gap.

References

Aristotle (1946): *The Politics of Aristotle*. Trans. by E. Barker. Oxford: Oxford University Press.

Arrow, K.J. (1951): *Social choice and individual values*, New York: Wiley.

Austen-Smith, D and Banks, J. (1996): Information aggregation, rationality, and the Condorcet jury theorem. *American Political Science Review*, 90, 34-45.

Banks, J.S. and Sundaram, R.K. (1998): Optimal retention in agency problems, *Journal of Economic Theory*, 82, 293-323.

Barro, R.J. (1973): The control of politicians: an economic model, *Public Choice*, 14, 19-42.

Bartels, L.M. (1988): *Presidential primaries and the dynamics of public choice*. Princeton: Princeton University Press.

Bartels, L.M. (1993): Messages received: the political impact of media exposure, *American Political Science Review*, 87, 267-284.

Bartels, L.M. (1996): Uninformed voters: information effects in presidential elections, *American Journal of Political Science*, 40, 194-230.

Berelson, B.R., Lazarsfeld, P.F., and McPhee, W.N. (1954): *Voting.* Chicago: The University of Chicago Press.

Berg, S. (1993): Condorcet's jury theorem, dependency among jurors, *Social Choice and Welfare*, 10, 87-96.

Besley, T. and Burgess, R. (2002): The political economy of government responsiveness: theory and evidence from India, *Quarterly Journal of Economics*, 117(4), 1415-1452.

Besley, T. and Case, A. (1995a): Incumbent behaviour, vote-seeking, tax-setting, and yardstick competition, *American Economic Review*, 85, 25-45.

Besley, T. and Case, A. (1995b): Does electoral accountability affect economic policy choices? Evidence from gubernatorial term limits, *Quarterly Journal of Economics*, 110, 769-798.

Besley, T. and Prat, A. (2006): Handcuffs for the grabbing hand? Media capture and government accountability, *American Economic Review,* 96(3), 720-736.

Brady, H.E. and Sniderman, P.M. (1985): Attitude attribution: a groups basis for political reasoning, *American Political Science Review*, 79, 1061-78.

Calvert, R.L. (1985): Robustness of the multidimensional voting model: candidate motivations, uncertainty and convergence, *American Journal of Political Science*, 29, 69-95.

Campbell, J.E., Converse, P.E., Miller, W.E., and Stokes, D.E. (1960): *The American voter*. New York: John Wiley.

Coate, S. and Morris, M. (1995): On the form of transfers to special interests groups, *Journal of Political Economy*, 103, 1210-1235.

Condorcet, Marquis de (1785): *Essai sur l'application de l'analyse a la probabilite des decisions rendues a la probabilite des voix*. Paris: De l'imprimerie royale.

Converse, P.E. (1964): The nature of belief systems in mass public. In *Ideology and Discontent*, ed. D.E. Apter, New York: Free Press.

Cox, G.W. and M.C. Munger (1989): "Closeness, expenditure, turnout: the 1982 U.S. House elections", *American Political Science Review*, 83 (1),217-32.

Delli Carpini, M.X. and Keeter, S. (1996): *What Americans know about politics and why it matters*. Yale University Press.

Djankov, S., McLiesh, C., Nenova, T. and Shleifer, A. (2001): Who owns the media?, paper presented at the *STICERD* workshop on Mass Media Economics, June 2002.

Downs, A. (1957): *An Economic Theory of Democracy*. New York, Harper & Row.

Feddersen, T.J. and Pesendorfer, W. (1996): The swing's voter's curse, *American Economic Review*, 86, 408-424.

Feddersen, T.J. and Pesendorfer, W. (1997): Voting behavior and information aggregation in elections with private information, *Econometrica*, 65, 1029-1058.

Feddersen, T.J. and Pesendorfer, W. (1998): Convicting the innocent: the inferiority of unanimous jury verdicts, *American Political Science Review*, 92, 23-35.

Feddersen, T.J. and Pesendorfer, W. (1999): Abstention in elections with asymmetric information and diverse preferences, *American Political Science Review*, 93, 381-398.

Ferejohn, J. (1986): Incumbent performance and electoral control, *Public Choice*, 50, 5-26.

Finkel, S.E. (1993): Reexamining the 'Minimal Effects' model in recent presidential campaigns, *Journal of Politics*, 55, 1-21.

Franklin, C.H. (1991): Eschewing obfuscation? Campaigns and the perceptions of U.S. Senate incumbents, *American Political Science Review*, 85, 1193-1214.

Grofman, B. and Norrander, B. (1990): Efficient use of reference group cues in a single dimension, *Public Choice*, 64, 213-217.

Harrington, J.E. (1993): Economic policy, economic performance, and elections, *American Economic Review*, 83, 27-42.

Hicks, A.M. and Swank, D.H. (1992): Politics, institutions, and welfare spending in industrialized democracies, 1960-1982, *American Political Science Review*, 86, 658-674.

Hill, K.Q. and Leighley, J.E. (1992): The policy consequences of class bias in State electorates, *American Journal of Political Science*, 36, 351-365.

Hill, K.Q., Leighley, J.E., and Hinton-Andersson, A. (1995): Lower class mobilization and policy linkage in the US States, *American Journal of Political Science*, 39, 75-86.

Husted, T.A. and Kenny, L.W. (1997): The effect of the expansion of the voting franchise on the size of government, *Journal of Political Economy*, 105, 54-82.

Iyengar, S. and Kinder, D.R. (1987): *News that matters*. Chicago: The University of Chicago Press.

Key, Jr., V. (1966): *The responsible electorate: rationality in Presidential voting 1936-1960*. New York: Vintage.

Kramer, G.H. (1972): Sophisticated voting over multidimensional choice spaces, *Journal of Mathematical Sociology*, 2, 165-180.

Larcinese, V. (2005a): Information Acquisition, Ideology and Turnout: Theory and Evidence from Britain, *STICERD Discussion Papers in Political Economy and Public Policy, 1*.

Larcinese, V. (2005b): Electoral Competition and Redistribution with Rationally Informed Voters, *Contributions to Economic Analysis and Policy*, vol. 4, n. 1, art. 4.

Larcinese, V. (2007a): Does Political Knowledge Increase Turnout? Evidence from the 1997 British general Election, *Public Choice*, forthcoming

Larcinese, V. (2007b): Voting over Redistribution and the Size of the Welfare State: the Role of Turnout, *Political Studies*, forthcoming.

Larcinese, V. (2007c): The Instrumental Voter Goes to the News-Agent: Information Acquisition, Election Closeness, and the Media", *Journal of Theoretical Politics*, forthcoming.

Lassen, D.D. (2005): The Effect of Information on Voter Turnout: Evidence from a Natural Experiment. *American Journal of Political Science*, 49, 103-118.

Lazarsfeld, P., Berelson, B., and Gaudet, H. (1944): *The people's choice*. New York: Columbia University Press.

Ledyard, J.O. (1984): The pure theory of large two-candidates elections, *Public Choice*, 44, 7-41.

Leighley, J.E. and Nagler, J. (1992): Individual and systemic influences on turnout: who votes? 1984. *The Journal of Politics*, 54, 718-740.

Lijphart, A. (1997): Unequal participation: democracy's unresolved dilemma, *American Political Science Review*, 91, 1-14.

Lindert, P. (1996): What limits social spending?, *Explorations in Economic History*, 33, 1-34.

Lippmann, W. (1922): *Public opinion*, New York: Free Press.

Lupia, A. (1992): Busy voters, agenda control, and the power of information. *American Political Science Review*, 86, 390-404.

Lupia, A. (1994): Shortcuts versus encyclopedias: information and voting behaviour in California insurance reform elections, *American Political Science Review*, 88, 63-76.

Lupia, A. and McCubbins, M.D. (1998): *The democratic dilemma: can citizens learn what they need to know?* New York: Cambridge University Press.

Margolis, H. (2001): Pivotal voting, *Journal of Theoretical Politics*, 13, 111-116.

Margolis, H. (2002): Pivotal voting and the Emperor's new clothes. *Social Choice and Welfare*, 19, 95-111.

Matsusaka, J.G. (1995): Explaining voter turnout patterns: an information theory, *Public Choice*, 84, 91-117.

McCombs, M. and Shaw, D. (1972): The agenda setting function of mass media, *Public Opinion Quarterly*, 36, 176-187.

McKelvey, R.D. and Ordeshook, P.C. (1984): Rational expectations in elections: some experimental results based on a multidimensional model, *Public Choice*, 44, 61-102.

Mill, J.S. (1835) [1963]: De Toqueville on democracy in America, in *Essays on politics and culture*, Himmelfarb, G. (ed.). Doubleday, New York

Mill, J.S. (1861): [1972] *Representative government*. Everyman Edition, London.

Mondak, J. (1994): Cognitive heuristics, heuristic processing, and efficiency in political decision making. In *New Directions in Political Psychology*, ed. Delli Carpini, M.X., Huddy, L.,Shapiro, R.Y. Greenwich-Conn.: JAI Press.

Neuman, W.R. (1986): *The paradox of mass politics: knowledge and opinion in the American electorate*. Cambridge: Harvard University Press.

Nie, N.H., Verba, S., and Petrocik, J.R. (1979): *The changing American voter*. Cambridge: Harvard University Press.

Norris, P., Curtice, J., Sanders, D., Scammell, L., and Semetko, H.A. (1999): *On message: communicating the campaign*. London: Sage.

Palfrey, T.R. and Rosenthal, H. (1985): Voter participation and strategic uncertainty, *American Political Science Review*, 79, 62-78.

Pateman, C. (1970): *Participation and democratic theory*. Cambridge: Cambridge University Press.

Patterson, S.C. and Caldeira, G.A. (1983): Getting out the vote: participation in gubernatorial elections, *American Political Science Review*, 77, 675-689.

Peterson, P.E. and Rom, M. (1989): American federalism, welfare policies, and residential choices, *American Political Science Review*, 83, 711-728.

Pomper, G.M. (1972): From confusion to clarity: issues and American voters, 1956-1968. *American Political Science Review*, 66, 415-428.

Popkin, S.L. (1991): *The reasoning voter*. Chicago: The University of Chicago Press.

Riker, W.H. and Ordeshook, P.C. (1968): A theory of the calculus of voting, *American Political Science Review*, 62, 25-42.

Rogoff, K. (1990): Equilibrium political budget cycles, *American Economic Review*, 80, 21-36.

Romer, T. (1975): Individual welfare, majority voting, and the properties of a linear income tax, *Journal of Public Economics*, 4, 163-185.

Rousseau, J.-J. (1762) [1968]: *The social contract*, Harmondsworth, Eng. Penguin.

Sanders, M.S. (2001): Uncertainty and turnout, *Political Analysis*, 9, 45-57.

Sartori, G. (1987): *The theory of democracy revisited*, Chatham, NJ: Chatham House Publishers.

Schumpeter, J.A. (1942): *Capitalism, socialism and democracy*. New York, Harper and Row.

Sen, A. (1981): *Poverty and famines*, Oxford, Oxford University Press.

Sen, A. (1984): Food battles: conflicts in the access to food, *Food and Nutrition*, 10, 81-89.

Sniderman, P.M., Brody, R.A., and Tetlock, P.E. (1991): *Reasoning and choice: explorations in political psychology*. New York: Cambridge University Press.

Sobel J. (1985): A theory of credibility, *Review of Economic Studies*, 52, 557-573.

Stromberg, D. (2004a). Mass Media Competition, Political Competition and Public Policy, *Review of Economic Studies*, 71, 265-284.

Stromberg, D. (2004b). Radio Impact on Public Spending, *Quarterly Journal of Economics*, 119, 189-221.

Verba, S., Schlozman, K.L. and Brady, H.E. (1993): Voice and Equality: Civic Voluntarism in American Politics. Harvard University Press.

Wittman, D.A. (1995): *The myth of democratic failure: why political institutions are efficient*. Chicago: University of Chicago Press.

Wolfinger, R.E. and Rosenstone, S.J. (1980): *Who votes?*. New Haven: Yale University Press.

Young, P. (1988): Condorcet's theory of voting, *Americal Political Science Review*, 82, 1231-44.

Zaller, J. (1989): Bringing converse back in: modeling information flow in political campaigns, *Political Analysis*, 1, 181-234.

Zaller, J. (1992): *The nature and origins of mass opinion*. New York, Cambridge University Press.

Zaller, J. (1995): The myth of massive media effects revived: empirical support for a discredited idea, in *Political persuation and attitude change*, ed. Mutz, D., Sniderman, P.M., and Brody, R.A. Ann Arbor: University of Michigan Press.