

Education as a Democratic Constraint

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Abstract

Claims of voter ignorance and systematically biased beliefs are empirically supported (Caplan 2002). Many political progressives and modern political theorists believe that public education can be an effective means of reducing voter ignorance and irrationality in democracies, thereby internalizing their negative externalities (Dewey 1916, Soder 1995). Indeed, where systematic bias is concerned, higher levels of education are correlated with less biased beliefs about economics (Caplan 2001a). This paper argues that even if voters are both publicly-spirited and well-educated, democratic political markets will still tend to be inefficient. The problem with public education as a solution to democratic failure is twofold: consuming more education does not itself raise the cost of holding irrational beliefs, and much of the knowledge that voters would need to make optimal decisions cannot be obtained through formal education.

I. Introduction

Many proponents of democracy are concerned about the prospect of democratic failure due to voter ignorance. For them, the solution is obvious: education of voters is a public good that must be provided by a democratic state in order to preserve it. Education is, in a sense, a constraint on democracy that either substitutes for or complements institutional and constitutional constraints on government power in democracies. This paper applies two economic theories to this reasoning, the theories of rational ignorance and rational irrationality. The primary conclusion is that simply providing zero marginal cost education to voters does not provide sufficient incentives to change voter beliefs or preferences. Section II lays out the claim that educating voters

will tend to produce improved democratic outcomes, and outlines the support and criticism that has been given thus far by rational choice economists. Section III is a rejection of the claim, where it is argued that even if one assumes voters are both public-spirited and well educated democratic outcomes will still tend to be inefficient. Section IV explains how education only provides information at a general level, and does not provide the kind of specific information that is most relevant to voters who must choose between various policies and candidates, and finally Section V contains brief concluding remarks.

I. The Progressive Claim

Concerns about democratic failure are not unique to Public Choice theorists. Since the early 20th century a small group of social and political philosophers, most notably John Dewey, have been concerned with the problem of voter ignorance. In fact, Dewey recognized the problem much as Public Choice economists might put it:

The devotion of democracy to education is a familiar fact. The superficial explanation is that a government resting upon popular suffrage cannot be successful unless those who elect and who obey their governors are educated. Since a democratic society repudiates the principle of external authority, it must find a substitute in voluntary disposition and interest; these can be created only by education. But there is a deeper explanation... [a] society marked off into classes need he specially attentive only to the education of its ruling elements. A society which is mobile, which is full of channels for the distribution of a change occurring anywhere, must see to it that its members are educated to personal initiative and adaptability. Otherwise, they will be overwhelmed by the changes in which they are caught and whose significance or connections they do not perceive. The result will be a confusion in which a few will appropriate to themselves the results of the blind and externally directed activities of others. (Dewey 1916)

Dewey is essentially arguing that in a democracy voters have little incentive to become informed about the vast majority of political issues – i.e. that they are rationally ignorant. Both his analysis and proposed solution can easily be stated in the language of economics: education in a democracy is a public good and therefore needs to be publicly provided to achieve efficient outcomes. And while Dewey might not believe that efficiency is the ultimate goal of a democracy, he is clearly concerned with problems that may result from rational ignorance, where “[m]en banded together in a criminal conspiracy...[and] political machines held together by the interest of plunder” will extract resources from the general population. (Ibid)

The progressive solution, then, is to educate voters – to provide them with the information that they find too costly to seek out individually. Within a public goods framework, the solution makes perfect sense. Education in this case yields benefits that are fundamentally non-excludable, as a lack of inefficient rent-seeking likely benefits many voters, whether they are informed or not, and the good is even non-rival in consumption, in the sense that one voter’s consumption of political information does not prevent another from consuming the same information. It might be noted, however, that in a sense *all* goods are rival in consumption so long as there is some cost to providing the good. Information may be non-rival, but all of the resources used in education, such as the labor of teachers, printed textbooks, etc. are scarce and thereby limit the availability of the information they pass along.

As it turns out, public education as a constraint on democratic failure has another application relevant to Public Choice theorists. Caplan’s model of rational irrationality presents another problem facing democracy: that of systematically biased beliefs. Caplan

(2001b) argues that voters in a democracy can be assumed to value their beliefs, in the sense that they identify themselves by their beliefs, and gain utility from holding some beliefs over others. Further, he suggests that voters are *rationally irrational* where beliefs are concerned; they tend more to hold irrational beliefs when the costs of holding those beliefs are low, and less so when the cost is high. For individuals as voters, Caplan argues, the cost of holding irrational beliefs is very low, as the likelihood of one's own vote will affect policy outcomes one way or the other is very small.

An example of systematic bias that Caplan (2002) has written on concerns economic beliefs. Using data from the Survey of Americans and Economists on the Economy (SAEE), Caplan shows a systematic belief difference that exists between professional economists and the general public. The difference itself might be interpreted as bias on the part of economists; but Caplan tests the leading alleged sources of economists' bias, for example the claims that they have a "right-wing" bias on a political spectrum and that economists are biased as a group based on income. In testing these potential sources of bias, Caplan finds no significant correlative effect of those factors on economic beliefs, though he does find positive correlation between "thinking like an economist" and factors such as gender, education, and job security (see Caplan 2001a). Without strong correlative support, Caplan makes a qualified rejection of claims concerning economist bias, and instead proceeds with the assumption that what separates economists from the general public is their education in their field of expertise.¹

Note how Caplan's explanation of systematic bias only adds weight to the progressive solution to democratic failure. One way to articulate Caplan's point is that

¹ Evidence of systematic bias as evidenced by belief differences between experts and the public has also been researched in the field of toxicology. (Kraus, et al. 1992)

voters will tend not to hold rational, i.e. nonbiased, beliefs where the cost of changing those beliefs is high. The progressive argument is, in economic terms, that education needs to be less costly to individuals so that they may form rational beliefs. Though I will argue otherwise in Section III, it seems at least superficially that these two ideas are in basic agreement about the cause of democratic failure, i.e. that a public good problem exists for "correct" beliefs in democracies.

The progressive solution to the problem of rational voter ignorance is not without empirical support. If the solution were effective, one would expect to see a correlation between education levels and "thinking like experts." In both Caplan (2001a) and Kraus, et al. (1992) this correlation is observable and significant. The more educated someone is, the more likely that person is to agree with experts in the field. Clearly this gives weight to the progressive push for public education in democracies. Is it not reasonable to conclude that increasing levels of education for all citizens would reduce both the problems of rational ignorance and rational irrationality? The next section attempts to answer that question.

III. Raising the Cost of Ignorance and Irrationality

It will be useful to start off this section with some simplifying assumptions. To evaluate the proposition that more education will solve the problems of rational ignorance and rational irrationality, the assumption will be made that all voters are well-educated. Furthermore, it will be assumed that voters are well-intentioned, and not narrowly self-interested, but only self-interested in a broad sense, where individual voters' utility functions may include arguments beyond material well-being.

With these assumptions in mind, the role of education in democracy can be evaluated. Starting with the problem of rational ignorance, would it persist in a society of well-educated and well-meaning voters?

Following the theory of rational ignorance, the answer would likely still be yes. Rational ignorance does not rely on an assumption of narrow self-interest. Voters may well wish to be informed and wish to make correct decisions, but the costs of information can be very high, and have eventually diminishing returns, even for the pure altruist. An altruist who seeks so much information that he leaves no time to contribute to positive social outcomes will not meet his ends as an altruist. So at some point, even the altruist must efficiently abandon the search for information. The constraint of information scarcity is also a problem in that voters who are well-educated will likely concentrate on a particular field of expertise, at the expense of expertise in other areas. One could imagine that all voters have two Ph.D.s, yet very few have done graduate-level work in multiple fields. Even with such a high level of education, ignorance of particulars is quite likely when one considers the multitude of federal, state, and local issues to vote on, as well as the slight differences of platform between candidates. Clearly all individuals, no matter how well-educated, must be rationally ignorant about most specific facts.

But does rational ignorance present a problem for democracy? Wittman (1995) has argued that rational ignorance is not a likely source of democratic failure, since there is no reason to believe that the error caused by voter ignorance is nonrandom. But is that necessarily true? At some point, voters must still rely on heuristics to make decisions on specific policy referenda and between candidates. Since heuristics are essentially mental shortcuts to aid understanding and decision-making, they are subject to manipulation by

subtle changes to the phrasing of a referendum question or how a candidate's policy stance is articulated. For an example of how heuristics can fail in this regard, consider the example where physicians, a highly-educated group, respond that they are more likely to choose an operation that has a 90% rate of survivability than a 10% rate of mortality, even though the two alternatives are statistically identical.² If a well-educated and well-meaning voter's decisions are similarly dependent on how issues and policy questions are phrased, then presumably the political agents who write the referenda and enjoy a bully pulpit can steer rationally ignorant voters toward certain decisions over others.

But even assuming that a well-educated and well-intentioned electorate is immune to any problems rooted in rational ignorance, it still confronts the problem posed by rational irrationality. Suppose, again, the case of a well-educated and well-meaning voter. She is still confronted with the same problem of information costs as was relevant to the discussion of rational ignorance. Regardless of her level of education, she is still very unlikely to seek out information at the expense of all other arguments in her utility function. It can be assumed that beliefs are among these arguments. Does education raise the costs of holding beliefs that may be "wrong," i.e. systematically different from the beliefs of experts?

One possibility is that education does raise the cost of holding irrational beliefs. Education may present information that contradicts one's beliefs, and the result is a cognitive cost, where an unresolved contradiction eats away at one's mind until a choice is made -- a choice between the old belief that is unsupported by one's education, and an alternative belief that is supported by the information obtained during education.

² See McNeill, et al. (1982) for a complete description of the survey mentioned.

Logically it would be true that education, to the extent that it creates cognitive costs for those holding irrational beliefs, would tend to reduce the level at which irrationality is observed. But any claim of the significance of cognitive costs is an empirical one, and it's not clear how Caplan's analysis of the SAEE data or surveys such as the one used by Kraus, et al. support a specific story of cognitive costs.

But to reject the significance of cognitive costs, it's necessary to offer an explanation of why they are probably insignificant. Simply acquiring information through education does not prevent an individual from rationalizing the new information with existing beliefs, particularly where the exposure to the information is minimal, such as when the information is outside one's area of expertise. It may be a general observation that more educated people hold beliefs closer to those of experts, but it may not be the case that more education in one field brings one's beliefs closer to those of experts in all or most fields of specialization. But what kind of evidence exists that demonstrates the empirical insignificance of cognitive costs? A good test would probably look at differences in the same individuals before and after education on a particular subject. The SAEE data compares non-economists to those who've received graduate training in economics, but there may well be some selection bias among economists and other "experts." Caplan found no ideological or income connection between economists and their beliefs about economics, but that does not eliminate the possibility that economists are in some way self-selected. It is likely that current economists, while taking their undergraduate courses in economics, were different from their classmates who chose to go into other fields as a profession. There are two strong candidates for ways in which they were different: 1) they found the emphasis on incentives and market activity more

persuasive than other students and 2) they simply had a better capacity to understand the material.

There is, in fact, some survey data that can speak indirectly to the notion of cognitive costs. If cognitive costs were indeed significant, then we should see changes in people's willingness to change behavior to be consistent with their beliefs. If a discrepancy between facts and beliefs can cause internal distress, then why not a discrepancy between beliefs and the implications of those beliefs? The General Social Survey conducted by the National Opinion Research Center at the University of Chicago, simply by the breadth of its questionnaire, can offer some insights into the significance of cognitive costs. Tables 1 and 2 show the survey results for two related questions on environmental beliefs. In the first question, the respondents were asked whether strict laws should be placed on industry to reduce damage to the environment. Response was overwhelmingly in the affirmative. Yet when asked how willing they are to accept cuts in their standard of living for the sake of environmental protection, very few respondents said they are "very willing." Only 26% were "fairly willing," the rest can be interpreted as wishing to at least maintain their standard of living. What is the overall observation? That people can hold beliefs, and simultaneously be unwilling to accept the high cost of applying those beliefs consistently in their lives.

Tables 3 and 4 show an apparent contradiction between people's beliefs and their behavior where auto emissions are concerned. While the vast majority of people responding to the survey believe the pollution caused by cars is at least "somewhat dangerous," a majority "never" cut back on driving for environmental reasons. This is of course explainable in terms of economics and Public Choice: the costs of driving are

dispersed and uncertain, while the benefits are much more immediate and concrete to the individual driver. But consistency with economic theory is not what's being tested; what's being tested is the notion that consistency is itself a benefit where beliefs are concerned and whether inconsistencies have significant cognitive costs. At least where environmental issues are concerned, it appears from the survey data that people do not choose to hold consistent beliefs or make their actions consistent with their beliefs where the benefits of consistency are low.

Where voting is concerned, consistency has similarly low benefits. If one's beliefs and desire to vote expressively are strong, contradictory information received through education will probably not increase costs enough to change voting behavior.

IV. General vs. Specific Knowledge

A different kind of argument against education as a solution to the problems of rational ignorance and rational irrationality focuses on the nature of knowledge itself. In what is perhaps F. A. Hayek's most famous essay, "The Use of Knowledge In Society," he calls attention to the importance in an economy of specific knowledge, the "dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess." (Hayek 1948, p.77) For the sake of clarity, this discussion will make a distinction between the knowledge Hayek was concerned with, specific knowledge, and the kind of knowledge that is more general and easily absorbed through education, i.e. common knowledge. It is precisely the specific knowledge that Hayek believed was unavailable to socialist central planners, and what prevented rational economic calculation under a socialist economy. The knowledge Hayek was concerned

about is necessarily subjective, as it varies greatly among individuals, and is itself so vast and specific to individual beliefs and circumstances that no single planner or even a group of planners could use it, or even obtain it. For Hayek, the most important kind of knowledge is that which is not widely held, and cannot be widely learned.

The reason that specific knowledge is important is due to this limitation. In a sense, dispersed local knowledge gives markets something to do. If all the necessary knowledge of consumer preferences, production limitations, and alternative options were available to planners, there would be no need for markets. Prices wouldn't be needed to provide crude signals of changes in circumstance, as all relevant changes in a market environment could be specifically known. But knowledge is itself a costly good, most especially where it is localized and subjective, and it is through a price system in an open market that a *hint* of relevant knowledge can reach market actors.

It is doubtful that Hayek would dismiss the role of common knowledge in economic life, but common knowledge is typically less dynamic and less of a challenge for economic calculation. Common knowledge can to some extent be taken for granted, and is part of the rules that define the game of market exchange. Specific knowledge is a dynamic part of the game, an unpredictable element that requires players to continuously experiment and adapt. Common knowledge is important, just as knowledge of a game's basic structure is important, but common knowledge itself does not provide a system of payoffs that induce players to take some risks while avoiding others. It doesn't allow for the exchange of knowledge itself. When one thinks of common knowledge, one imagines knowledge that is already shared and held by individuals within a market.

Boettke (2002) presents the Austrian distinction between information and knowledge as being a crucial and perhaps defining feature of the Austrian economists' approach to economic inquiry. The Austrian approach, Boettke explains, is to treat information as a stock and knowledge as a flow. Knowledge for Boettke can be thought of as the specific knowledge explained above, and information can be treated as a synonym for what this paper has already described as common knowledge. Specific knowledge, treated as a flow, changes as discovery occurs, as market participants act, and as they learn. Put in different terms, it evolves. The new knowledge is determined both by the interaction and how it existed prior to its evolution.

Information, or common knowledge, is the equilibrium notion of knowledge. It is the facts that are out there to be learned. In a neoclassical equilibrium framework, information is costly to obtain, and is sought after to a point where the marginal benefits of a search for information equal the marginal costs of the search. *How* information is found isn't seen as particularly important to individuals acting within a market. Information is two-dimensional; you either have more of it or less of it.

This characterization of the equilibrium-oriented view of information is not necessarily a criticism. To the extent that economists working within this framework understand that they are simplifying the notion of information to make analysis possible, it is a correct step. Information is certainly easier understood as something costly that is demanded and supplied in the marketplace. But the problem with equilibrium analysis is when it distracts economists away from the evolving market process that they wish to explain. If the point is merely to explain the basic incentives surrounding information and ignorance, an equilibrium framework clarifies the point. But if an economist wishes

to examine the incentives in more detail, to explain why actors are informed or ignorant in a particular way, then it is necessary to step away from a static equilibrium framework.

When one applies these insights to the claim that education can solve the problems of rational ignorance and rational irrationality, the way in which education might provide voters with specific and relevant information is unclear. Education would certainly tend to make voters more informed, but it would be unable to provide them with the kind of specific and timely knowledge that is most costly for them to obtain on their own -- precisely the kind of knowledge they tend not to seek out. If they do not seek out such knowledge because of its high costs, then voters will tend toward rational ignorance, where in elections they choose based on what little information they might have, or rational irrationality, where voters substitute beliefs for outcome-oriented decision-making.

V. Conclusion

Even if voters are both publicly-spirited and well-educated, democratic political markets will still tend to be inefficient. Public education is a poor solution to democratic failure primarily because it cannot solve the problems of rational ignorance and rational irrationality. It will tend to fail as a solution to those problems because it cannot deliver to voters the kind of specific, relevant, and timely information necessary they need to make informed decisions about specific policies and political candidates. While education logically decreases information costs to some degree, it will not systematically increase the costs of holding biased beliefs. The only sense in which education raises the cost of irrational beliefs is by confronting voters with cognitive costs

due to conflict between information and valued beliefs. But there's evidence that individuals can easily rationalize away contradictions and avoid cognitive costs. For education or any other solution to be effective as a constraint on democracy, it must provide real incentives to voters to adopt rational beliefs and seek out relevant information.

Table 1

1994 General Social Survey Question #772: On the whole, do you think it should or should not be the government's responsibility to impose strict laws to make industry do less damage to the environment? (Percentages are approximate)

	Definitely should be	Probably should be	Probably should not be	Definitely should not be	Can't choose/No Answer
% of respondents	42%	39%	8%	3%	8%

Table 2

1994 General Social Survey Question #936 C.: And how willing would you be to accept cuts in your standard of living in order to protect the environment? (Percentages are approximate)

	Very willing	Fairly willing	Not very willing	Not at all willing	Neither willing nor unwilling/Can't choose/No Answer
Response	4%	26%	28%	15%	26%

Table 3

1994 General Social Survey Question #940 A.: In general, do you think that air pollution caused by cars is...(Percentages are approximate)

	Extremely dangerous	Very dangerous	Somewhat dangerous	Not very dangerous	Not dangerous at all
Response	16%	26%	42%	8%	< 1%

Table 4

1994 General Social Survey Question #947 D.: And how often do you cut back on driving a car for environmental reasons? (Percentages are approximate)

	Always	Often	Sometimes	Never	Don't drive/no answer
Response	1.4%	5%	26%	58%	8%

References:

- Boettke, Peter (2002) "Information and Knowledge: Austrian Economics in Search of Its Uniqueness," *The Review of Austrian Economics* 15:4 263-74.
- Caplan, Bryan (2001a) "What Makes People Think Like Economists? Evidence on Economic Cognition from the Survey of Americans and Economists on the Economy." *Journal of Law and Economics* 44:2 395-426.
- Caplan, Bryan (2001b) "Rational Ignorance versus Rational Irrationality." *Kyklos* 54:1, 3-26.
- Caplan, Bryan (2002) "Systematically Biased Beliefs About Economics: Robust Evidence of Judgemental Anomalies from the Survey of Americans and Economists on the Economy." *Economic Journal* 112: 433-458.
- Dewey, John (1916) "The Democratic Conception In Education," in *Democracy and Education* (1997 Reprint). New York: Free Press.
- Hayek, Friedrich A. (1948) "The Use of Knowledge in Society" in *Individualism and Economic Order*. Chicago: University of Chicago Press.
- Kraus, N., Malmfors, T., Slovic, P. (1992) "Intuitive Toxicology: Expert and Lay Judgments of Chemical Risks" *Risk Analysis* 12: 215-232.
- McNeill, B.J., Pauker, S.G., Sox, H.C. and Tversky, A. (1982) "On the Elicitation of Preferences for Alternative Therapies," *New England Journal of Medicine* (May 27) 306:1259-62.
- Soder, Roger (1995, Ed.) *Democracy, Education, and the Schools*. San Francisco: Jossey-Bass.
- Wittman, Donald (1995) *The Myth of Democratic Failure*. Chicago: University of Chicago Press.