

Sociotropes, Systematic Bias, and Political Failure: Reflections on the Survey of Americans and Economists on the Economy*

Bryan Caplan, *George Mason University*

Objectives. Economic models of politics typically make two assumptions about voters: First, their motives are egocentric, not sociotropic; second, their beliefs are rational, not subject to systematic bias. Political scientists have presented strong evidence against the first assumption (Mansbridge, 1990), but have become increasingly willing to accept the second. (Page and Shapiro, 1992; Marcus and Hanson, 1993) This article tests these two assumptions, then explores the tests' broader implications. *Methods.* I use the Survey of Americans and Economists on the Economy to test for egocentricity of motivation and rationality of belief. *Results.* Both standard assumptions fail for the case where the economic approach would seemingly be most relevant: economic beliefs. *Conclusions.* This is not necessarily cause for greater optimism about the efficiency of democracy: sociotropic voters with biased economic beliefs are more likely to produce severe political failures than are selfish voters with rational expectations.

Despite the philosopher's perplexity, people are fiercely attached to their principles—even to unintelligible or preposterous ones. . . . Their minds are clouded by childish myths and unspeakable fears. As a result, they often fail to grasp their private advantage or to act upon it when they do.

Stephen Holmes, "The Secret History of Self-Interest" (1990:274)

*Direct correspondence to Bryan Caplan, Department of Economics and Center for Study of Public Choice, George Mason University, Fairfax, VA 22030 <bcaplan@gmu.edu>. The author agrees to share all data and coding information with those interested in replicating this study. For discussion and useful suggestions I would like to thank Don Boudreaux, Tyler Cowen, David Levy, Pete Boettke, Jim Schneider, Geoffrey Brennan, Bill Dougan, Bill Dickens, Mitch Mitchell, Ed Lopez, J. C. Bradbury, Todd Zywicki, David Bernstein, Robin Hanson, Dan Klein, Alex Tabarrok, Nicky Tynan, Timur Kuran, Ron Heiner, Roger Congleton, Fab Rojas, Robert Lineberry, three anonymous referees, seminar participants at George Mason, participants at the Public Choice Outreach seminar and the Public Choice Society meetings, and members of my Armchair Economists' listserv. Gisele Silva, Eric Crampton, and Scott Beaulier provided excellent research assistance. Particular thanks are owed to the Kaiser Family Foundation for creating and sharing the data for the Survey of Americans and Economists on the Economy. The standard disclaimer applies.

Introduction

Economists usually make two key assumptions about voters, one about their motivation, the other about their cognition (Stigler, 1986; Becker, 1976). The standard motivational assumption is that voters are self-interested; they care about their own welfare, not the good of society. The standard cognitive assumption is that voters have rational expectations;¹ although they make random mistakes, *on average* they are correct.

Political scientists have voiced serious doubts about the self-interest assumption (Marcus and Hanson, 1993; Mansbridge, 1990; Held, 1990). It is intuitively implausible insofar as it rules out any role for autonomous ideas. Moreover, when empirically tested, the egocentric model fails to fit the facts (Sears and Funk, 1990; Citrin and Green, 1990). The evidence is far more consistent with the opposite assumption of sociotropic motivation (Mutz and Mondak, 1997). While people may be selfish in private life, when they enter the political sphere it is ideas, not interests, that dominate.

In contrast, political scientists' attitude toward some version of the rational expectations assumption has become increasingly favorable. Many find it theoretically plausible relative to the extreme cognitive assumptions of some economic models. But it is particularly significant that political scientists have begun to appeal to rational expectations-style reasoning in empirical research (Althaus, 1996, 1998; Bartels, 1996; Page and Shapiro, 1992). Perhaps the best example of this development may be found in the work of Page and Shapiro:

Even if individuals' responses to opinion surveys are partly random, full of measurement error, and unstable, when aggregated into a collective response—for example, the percentage of people who say they favor a particular policy—the collective response may be quite meaningful and stable. This is just an example of the law of large numbers. Under the right conditions, individual measurement errors will be independently random and will tend to cancel each other out. (1993:41)

Page and Shapiro go on to argue that public opinion “nearly always changes in *reasonable and sensible* ways to objective events and to the new ideas and interpretations provided to it” (1993:60). Admittedly, they diverge from strict rational expectations thinking in conceding a role for “misrepresentations and biases in the available information” (1992:116). Economists firmly committed to the rational expectations hypothesis would make the stronger claim that voters *discount*, or adjust for, such misrepresentations and biases (Wittman, 1995). Yet the difference between political scientists' approach, exemplified by Page and Shapiro, and economists' approach, exemplified by Wittman, seems minor considering the strong implication that both variants on the “miracle of aggregation” share: *if voters receive balanced*

¹ Throughout this paper, “rational” is used as a synonym for “rational expectations.”

information, on average the electorate as a whole will not make mistakes. The strict rational expectations proponent just goes further by maintaining an even bolder claim: *whether or not voters receive balanced information, on average the electorate as a whole will not make mistakes.*

This article begins by discussing evidence from the Survey of Americans and Economists on the Economy (1996; henceforth SAEE) that *both* standard assumptions of economic models of politics fail empirically. Economists' assumption of egocentric motivation fails: education and ideology are the main determinants of economic beliefs, and income plays almost no role at all (Caplan, 2000). Economists' cognitive assumption of rational expectations fails as well: controlling for a broad set of potential confounding variables, there remain large *systematic* belief differences between economists and the public (Caplan, forthcoming).

These empirical findings are only meant to motivate and lay the groundwork for the article's central contention: If economists are wrong about voters' motivation *and* cognition, democracy probably functions worse than if economists were correct on both counts. Many economic models of political failure depend on the self-interest assumption. But the rational expectations assumption also *rules out* many forms of political failure. The net welfare impact of relaxing both, I contend, is negative. For example, voters with rational expectations will not systematically underestimate the material benefits of international free trade and vote for protectionism even though it makes most people poorer. Voters with systematic antiforeign biases found in the SAEE might.

This thesis is contrary to most critical examinations of the economic approach to politics. Held (1990) for example states that:

There are good reasons to believe that a society resting on no more than bargains between self-interested or mutually disinterested individuals will not be able to withstand the forces of egoism and dissolution pulling such societies apart. Although there may be some limited domains in which rational contracts are the appropriate form of social relations, as a foundation for the fundamental ties which ought to bind human beings together, they are clearly inadequate. (1990:303)

The lesson this article draws from the SAEE is essentially identical to what Quirk (1990) takes away from the uneven successes of policy reform in the 1980s: "Policy-making may be shaped by ideas about the public interest, but they may not be *good* ideas. The obstacles to a deliberate, informed politics of ideas are more serious threats to the nation's well-being—and more worthy of researchers' attention—than the potential for exploitation and waste that arises in the politics of self-interest" (1990:199)

This article is organized as follows. The next section discusses the data and presents the SAEE evidence against the self-interest and rational expectations assumptions. The third section makes the article's core argument:

On net, adopting more realistic motivational and cognitive assumptions makes democracy look worse, not better. The fourth section concludes.

The Survey of Americans and Economists on the Economy

The Data Set

Estimation throughout this paper uses the Survey of Americans and Economists on the Economy data set.² The respondents were 1,510 members of the public and 250 Ph.D. economists. The former were randomly selected nationwide from the general population; the latter were randomly selected members of the American Economic Association with a Ph.D. in economics, employed full time as an economist, and specializing in domestic economic policy (SAEE, 1996:18).

This data set, which asks the general public and Ph.D. economists identical questions about positive economics, is almost uniquely suited for this article's task (Blendon et al., 1997). This article focuses on 37 questions that the SAEE posed to *both* the general public and economists (see Table 1). The surveyors also collected detailed information about the personal characteristics of all respondents, listed in Table 2. Since the SAEE includes measurements of each respondent's self-interested characteristics (income, job security, past and expected income growth), and autonomous ideas (ideology, party affiliation, and education), it is possible to directly estimate the relative importance of egocentric and sociotropic concerns.³ Since the data set includes both noneconomists and economists, it is possible to test the compatibility of the public's beliefs with the rational expectations assumption.

Testing for Egocentric Motivation

What shapes noneconomists' economic beliefs? This section analyzes noneconomists' responses to positive economic questions as functions of ideas, interests, and demographic factors (Caplan, 2000). I estimate ordered logits with Table 1's 37 questions as dependent variables. All use the same set of independent variables to jointly estimate the linear effect of "ideas," "interests," and "demographics" on beliefs.

Table 3 displays the most noteworthy findings, tabulating how often each independent variable is statistically significant at the 5 percent, 1 percent, 0.1 percent, and 0.001 percent levels. For example, the Dem row shows that

²Note the availability of a webbed summary of the results at: <<http://www2.kff.org/content/archive/1199/econgen.html>>.

³The SAEE also has data on demographic variables—race, gender, and age. Their impact must be interpreted with care, since as, for example, Mutz and Mondak (1997) note, each could reflect egocentric, sociotropic, or group-welfare motivations.

TABLE 1
Questions and Mean Answers

#	Variable	Question	Mean (Pub)	Mean (Econ)
<i>Regardless of how well you think the economy is doing, there are always some problems that keep it from being as good as it might be. I am going to read you a list of reasons some people have given for why the economy is not doing better than it is. For each one, please tell me if you think it is a major reason the economy is not doing better than it is, a minor reason, or not a reason at all.</i>				
0 = "Not a reason at all"; 1 = "Minor reason"; 2 = "Major reason"				
1	TAXHIGH	Taxes are too high	1.50	0.77
2	DEFICIT	The federal deficit is too big	1.73	1.14
3	FORAID	Foreign aid spending is too high	1.53	0.14
4	IMMIG	There are too many immigrants	1.23	0.22
5	TAXBREAK	Too many tax breaks for business	1.29	0.65
6	INADEDUC	Education and job training are inadequate	1.56	1.61
7	WELFARE	Too many people are on welfare	1.61	0.72
8	AA	Women and minorities get too many advantages under affirmative action	0.76	0.21
9	HARDWORK	People place too little value on hard work	1.44	0.82
10	REG	The government regulates business too much	1.23	0.97
11	SAVINGS	People are not saving enough	1.39	1.49
<i>Now I am going to read you another list of reasons, having to do with businesses, that some people have given for why the economy is not doing better than it is. For each one, please tell me if you think it is a major reason the economy is not doing better than it is, a minor reason, or not a reason at all.</i>				
0 = "Not a reason at all"; 1 = "Minor reason"; 2 = "Major reason"				
12	PROFHIGH	Business profits are too high	1.27	0.18
13	EXECPAY	Top executives are paid too much	1.59	0.69
14	BUSPROD	Business productivity is growing too slowly	1.18	1.43
15	TECH	Technology is displacing workers	1.26	0.27
16	OVERSEAS	Companies are sending jobs overseas	1.59	0.48
17	DOWNSIZE	Companies are downsizing	1.50	0.48
18	COMPEDUC	Companies are not investing enough money in education and job training	1.53	1.16
<i>Generally speaking, do you think each of the following is good or bad for the nation's economy, or don't you think it makes much difference?</i>				
0 = "Bad"; 1 = "Doesn't make much difference"; 2 = "Good"				
19	TAXCUT	Tax cuts	1.46	1.04
20	WOMENWORK	More women entering the workforce	1.47	1.73
21	TECHGOOD	Increased use of technology in the workplace	1.57	1.98
22	TRADEAG	Trade agreements between the United States and other countries	1.33	1.87
23	DOWNGOOD	The recent downsizing of large corporations	0.62	1.40

Some people say that these are economically unsettled times because of new technology, competition from foreign countries, and downsizing. Looking ahead 20 years, do you think these changes will eventually be good or bad for the country or don't you think these changes will make much difference?

TABLE 1—continued

24 CHANGE20	0 = "Bad"; 1 = "Won't make much difference"; 2 = "Good"	1.15	1.92
<i>Do you think that trade agreements between the United States and other countries have helped create more jobs in the U.S., or have they cost the U.S. jobs, or haven't they made much of a difference?</i>			
25 TRADEJOB	0 = "Cost the U.S. jobs"; 1 = "Haven't made much difference"; 2 = "Helped create jobs in the U.S."	0.64	1.46
<i>Which do you think is more responsible for the recent increase in gasoline prices?</i>			
26 WHYGASSD	0 = "Oil companies trying to increase their profits"; 1 = "The normal law of supply and demand" ["both" coded as 1; "neither" as 0]	0.26	0.89
<i>Do you think improving the economy is something an effective president can do a lot about, do a little about, or is that mostly beyond any president's control?</i>			
27 PRES	0 = "Beyond any president's control"; 1 = "Do a little about"; 2 = "Something president can do a lot about"	0.92	0.92
<i>Do you think the current price of gasoline is too high, too low, or about right?</i>			
28 GASPRICE	0 = "Too low"; 1 = "About right"; 2 = "Too high"	1.68	0.63
<i>Do you think most of the new jobs being created in the country today pay well, or are they mostly low-paying jobs?</i>			
29 NEWJOB	0 = "Low-paying jobs"; 1 = "Neither"; 2 = "Pay well"	0.37	1.07
<i>Do you think the gap between the rich and the poor is smaller or larger than it was 20 years ago, or is it about the same?</i>			
30 GAP20	0 = "Smaller"; 1 = "About the same"; 2 = "Larger"	1.70	1.85
<i>During the past 20 years, do you think that, in general, family incomes for average Americans have been going up faster than the cost of living, staying about even with the cost of living, or falling behind the cost of living?</i>			
31 INCOME20	0 = "Falling behind"; 1 = "Staying about even"; 2 = "Going up"	0.39	1.14
<i>Thinking just about wages of the average American worker, do you think that during the past 20 years they have been going up faster than the cost of living, staying about even with the cost of living, or falling behind the cost of living?</i>			
32 WAGE20	0 = "Falling behind"; 1 = "Staying about even"; 2 = "Going up"	0.34	0.76
<i>Some people say that in order to make a comfortable living, the average family must have two full-time wage earners. Do you agree with this, or do you think the average family can make a comfortable living with only one full-time wage earner?</i>			
33 NEED2EARN	0 = "Can make living with one wage earner"; 1 = "Agree that need two wage earners"	0.87	0.75
<i>Over the next five years, do you think the average American's standard of living will rise, or fall, or stay about the same?</i>			

TABLE 1—continued

34 STAN5	0 = "Fall"; 1 = "Stay about the same"; 2 = "Rise"	0.93	1.43
<i>Do you expect your children's generation to enjoy a higher or lower standard of living than your generation, or do you think it will be about the same?</i>			
35 CHILDGEN	0 = "Lower"; 1 = "About the same"; 2 = "Higher"	1.06	1.28
<i>[If you have any children under the age of 30] When they reach your age, do you expect them to enjoy a higher or lower standard of living than you do now, or do you expect it to be about the same?</i>			
36 CHILDSTAN	0 = "Lower"; 1 = "About the same"; 2 = "Higher"	1.30	1.30
<i>When you think about America's economy today, do you think it is . . .</i>			
37 CURECON	0 = "In a depression"; 1 = "In a recession"; 2 = "Stagnating"; 3 = "Growing slowly"; 4 = "Growing rapidly"	2.59	3.10

there are seven equations in which the coefficient on Dem is significant at the 5 percent level, compared to three equations at the 1 percent level, one at the 0.1 percent level, and zero at the 0.001 percent level. Table 3 then shows Pearson's p_λ test statistic, λ , for each independent variable, under the null that the true coefficient for the variable is zero in all 37 equations (Maddala, 1977:47–48). The p_λ test provides a formal criterion for ranking the independent variables' "overall" importance.

Two findings immediately stand out: the dominant role of education and ideology, and the near-irrelevance of income. The value of λ for Education is the largest by far. It is, moreover, difficult to reinterpret this as a mere proxy for self-interest, since the specifications control for all the other variables, income and job security included. The p_λ test statistic for respondents' self-described ideology marks it as second only to education in overall importance. In stark contrast, Income's λ is one of the smallest, barely exceeding the 5 percent critical value of 95.08.

Leaving statistical significance aside, what is the absolute magnitude of these variables' impact?⁴ Education's is particularly large. The divergence between respondents with the lowest and highest possible education levels is often 20 percentage points, and gaps as great as 40 percentage points arise. Out of low-education respondents, 69 percent see excessive immigration as a "major" economic problem, compared to a mere 26 percent of high-education respondents. Eighty-seven percent of low-education respondents think "too many people on welfare" is a major problem, versus only 58 percent with high education. Only 38 percent with the highest education level see excessive profits as a major problem, compared to 65 percent with the lowest education level.

⁴Due to logits' nonlinearity, comparisons fix all *other* variables at their median values. For more information on effect magnitudes, see Caplan (2001a).

TABLE 2
Control Variables

Variable	Question	Coding
Econ	—	1 if economist, 0 otherwise
Black Asian Othrace	What is your race? Are you white, black or African-American, Asian-American or some other race?	Black = 1 if black, 0 otherwise Asian = 1 if Asian, 0 otherwise Othrace = 1 if other race, 0 otherwise
Age	—	1996-birthyear
Male	—	1 if male, 0 otherwise
Jobsecurity	How concerned are you that you or someone else in your household will lose their job in the next year?	3 = "not at all concerned" 2 = "not too concerned" 1 = "somewhat concerned" 0 = "very concerned"
Yourlast5	During the past five years, do you think that your family's income has been going up faster than the cost of living, staying about even with the cost of living, or falling behind the cost of living?	0 = "Falling behind" 1 = "Staying about even" 2 = "Going up"
Yournext5	Over the next five years, do you expect your family's income to grow faster or slower than the cost of living, or do you think it will grow at about the same pace?	0 = "Slower" 1 = "About the same" 2 = "Faster"
Income	If you added together the yearly incomes, before taxes, of all the members of your household for the last year, 1995, would the total be:	1 = \$10,000 or less 2 = \$10,000–19,999 3 = \$20,000–24,999 4 = \$25,000–29,999 5 = \$30,000–39,999 6 = \$40,000–49,999 7 = \$50,000–74,999 8 = \$75,000–99,999 9 = \$100,000 or more
Dem Rep Indep Othparty	In politics today, do you consider yourself a Republican, a Democrat, or an Independent?	Dem = 1 if Democrat, 0 otherwise Rep = 1 if Republican, 0 otherwise Indep = 1 if independent, 0 otherwise Othparty= 1 if member of another party, 0 otherwise

TABLE 2—continued

Ideology	Would you say that your views in most political matters are very liberal, liberal, moderate, conservative, or very conservative?	Ideology: -2 = "very liberal" -1 = "liberal" 0 = "moderate"/"don't think in those terms" 1 = "conservative" 2 = "very conservative"
Othideol		Othideol = 1 if "don't think in those terms," 0 otherwise
Education	What is the last grade or class that you COMPLETED in school?	1 = "None, or grade 1-8" 2 = "High school incomplete (grades 9-11)" 3 = "High school graduate (grade 12 or GED certificate)" 4 = "Business, technical, or vocational school AFTER high school" 5 = "Some college, no 4-year degree" 6 = "College graduate (B.S., B.A., or other 4-year degree)" 7 = "Post-graduate training or professional schooling after college"

There are also large ideological effects. Imagine comparing belief distributions for "very liberal" Democrats and "very conservative" Republicans. Fully 81 percent of the extreme conservatives see high taxes as a major problem, but only 32 percent of extreme liberals agree. Fifty-seven percent of the conservatives think excessive regulation is a major problem, compared to 16 percent of the liberals. In the opinion of 92 percent of very liberal Democrats—and 57 percent of very conservative Republicans—inequality became more pronounced over the last two decades.

In contrast, even when one compares the very richest to the very poorest, it is difficult to discern any impact of income. Forty-four percent of the poorest think tax breaks are a major problem, versus 42 percent of the richest. Thirty-three percent of the poorest agree with 31 percent of the richest that regulation is a major problem. The poor are actually *more* concerned that "too many people are on welfare" than are the rich.

Overall, then, income and economic beliefs are nearly orthogonal controlling for all else. Bivariate relationships between income and beliefs frequently arise, but these typically vanish after controlling for education (which has a 0.42 correlation with income for the general public). Dropping

TABLE 3
 Summary of Ordered Logit Results
 (All 37 Questions, Noneconomist Data Only)

Variable	Statistical Significance				$\lambda \sim \chi^2(74)$
	5%	1%	0.1%	0.001%	
Ideas					
DEM	7	3	1		118.19
REP	10	5	1		145.00
OTHPARTY	3				83.01
IDEOLOGY*(1-OTHHIDEOL)	14	14	12	9	393.46
OTHHIDEOL	3				86.41
EDUCATION	25	20	16	13	712.42
Interests					
JOBSECURITY	18	10	4		258.68
YOURLAST5	14	13	7	3	331.24
YOURNEXT5	13	11	8	3	309.18
INCOME	3	2	1		109.38
Demographics					
BLACK	9	5	4	1	189.28
ASIAN	5				73.96
OTHRACE	5	3	1		123.62
AGE	13	9	5		219.15
AGE^2	12	7	6		216.12
MALE	20	13	9	6	355.49

education, income growth, and job security from the set of independent variables makes income's λ skyrocket to 503.55, which helps explain why its influence is so overrated.

Is there any other evidence that interests have a large effect on economic beliefs? Gender takes third place in terms of overall importance, but its pattern of influence hardly suggests egocentrism. Males are *less* worried about the negative economic impact of welfare than females, and are not unusually pessimistic about female labor force participation. The general pattern is simply that males take diverse problems less seriously. Admittedly, the three other measures of self-interest—recent income growth, expected income growth, and job security—matter. But theirs is at most a supporting role: as measured by their λ s, they are the fourth, fifth, and sixth most important variables overall. Moreover, considering the near-irrelevance of the *level* of income, it is difficult to characterize the interest variables as imperfect proxies for permanent income.⁵ In a rigid caste society, or one with severe long-term unemployment, upwardly mobile people with secure jobs could conceivably have similar interests regardless of their rung on the income ladder; yet such a commonality sounds implausible for the contemporary

⁵ For further discussion of this point, see Caplan (2000).

TABLE 4
 Summary of Ordered Logit Results
 (All 37 Questions, Pooled Noneconomist and Economist Data)

Variable	Statistical Significance				$\lambda \sim \chi^2(74)$
	5%	1%	0.1%	0.001%	
Ideas					
DEM	10	6	2		160.34
REP	11	5	4		161.11
OTHPARTY	2				80.32
IDEOLOGY*(1-OTHHIDEOL)	18	15	14	9	486.11
OTHHIDEOL	3				86.41
EDUCATION	23	20	17	13	720.48
ECON	31	30	29	23	1816.33
Interests					
JOBSECURITY	19	9	3		250.58
YOURLAST5	15	13	8	4	342.87
YOURNEXT5	14	10	7	3	335.16
INCOME	4	1	1	1	123.78
Demographics					
BLACK	10	5	4	1	185.19
ASIAN	4	1			71.36
OTHRACE	4	1			102.43
AGE	12	8	6		215.22
AGE^2	13	8	7		213.72
MALE	20	14	9	6	356.71

United States. On balance, the SAEE evidence is highly consistent with political scientists' findings on the surprisingly weak impact of self-interest on beliefs about social questions.

Testing for Rational Expectations

Table 1 strongly supports the widespread perception that economists and the public have systematic disagreements (Rhoads, 1985). Prima facie, this suggests that the general public suffers from systematic bias. However, there are at least two alternative explanations. The first is self-serving bias on the part of economists (Dahl and Ransom, 1999). Perhaps they rationalize the interests of the affluent and secure (Blendon et al., 1997). The second is that economists are driven by their ideological prejudice in favor of free trade, competition, and laissez-faire, as critics of the economics profession often maintain.

The 37 logits from the previous section were rerun, after pooling the data for noneconomists and economists, and adding an Econ dummy variable to the set of independent variables. Table 4 summarizes the new results. The statistical significance of the Econ dummy remains enormous even after

controlling for self-serving and ideological variables (Caplan, forthcoming a). As Table 4 shows, Econ is without question the most important variable overall in terms of its λ . Its coefficient is significant at the 5 percent level in 31 out of the 37 equations, at the 1 percent level in 30, at the 0.1 percent level in 29, and 0.001 percent level in 23. Economic training overshadows both personal interests and ideological commitments.

Pooling economists and noneconomists leaves Table 3's other results mostly unaltered. The impact of ideology and party do however noticeably rise; economists, like other highly educated individuals, are more prone to structure their beliefs in ideological terms (Zaller, 1992).

Table 5 looks at the impact of Econ on beliefs in more detail, displaying estimated coefficients and z-stats for the 37 questions. As a general rule, economists are more optimistic than the general public. Economists assign significantly lower weight to 15 out of the 18 "reasons why the economy is not doing better than it is," and are more worried about only one problem (slow business productivity growth). They are more positive about all the forces in Questions 19–25, tax cuts excepted. While they are roughly in agreement with the general public's views about the growth of inequality and the current state of the economy, in all other respects economists are markedly more upbeat about the past, present, and future performance of the economy.

Several studies, most notably Althaus (1996, 1998), Delli Carpini and Keeter (1996), and Bartels (1996) empirically estimate the discrepancy between "fully informed" and observed distributions of public opinion and voting. Table 5, similarly, compares the implied mean beliefs of economists and the general public, setting all variables other than Econ equal to their median values for the *general public*. The "General Public" columns show average beliefs for typical members of the general public; the "Economist" columns simulate how average beliefs *would look* if typical members of the general public were economists.

The magnitude of the discrepancy is predictably large: A large fraction of the public sees major problems that many or even most of them would deny are problems at all if they had economic training. For example, the public's mean severity rating for immigration is 1.19, but only 0.49 for economists. Comparable divergence exists for the questions on excessive profits (mean rating 1.33 for the public, 0.40 for economists), overseas competition (1.65 versus 0.85), and foreign aid (1.58 versus 0.46). Economists are even more likely to affirm the supply-and-demand explanation of the 1996 gas price increase (85 percent for) than the public is to deny it (71 percent against).

TABLE 5

Economic Training and Economic Beliefs
(Pooled Noneconomist and Economist Data; Comparisons Set Variables
Other than Econ Equal to Median Values for General Public)

#	Variable	Econ Coef.	z-Stat	Mean (Pub)	Mean (Econ)
1	TAXHIGH	-0.88	-4.71	1.53	1.23
2	DEFICIT	-1.78	-9.01	1.80	1.30
3	FORAID	-2.95	-12.38	1.58	0.46
4	IMMIG	-1.78	-8.41	1.19	0.49
5	TAXBREAK	-0.61	-3.42	1.29	1.05
6	INADEDUC	0.26	1.32	1.60	1.66
7	WELFARE	-1.07	-5.72	1.65	1.30
8	AA	-1.35	-6.29	0.71	0.30
9	HARDWORK	-1.19	-6.65	1.34	0.84
10	REG	-0.17	-0.98	1.13	1.08
11	SAVINGS	0.20	1.11	1.34	1.41
12	PROFHIGH	-2.54	-10.78	1.33	0.40
13	EXECPAY	-1.74	-9.11	1.70	1.13
14	BUSPROD	0.98	5.33	1.14	1.49
15	TECH	-1.55	-7.86	1.19	0.61
16	OVERSEAS	-2.32	-11.58	1.65	0.85
17	DOWNSIZE	-2.15	-11.03	1.56	0.77
18	COMPEDUC	-0.77	-4.09	1.56	1.31
19	TAXCUT	-0.71	-3.78	1.48	1.21
20	WOMENWORK	0.57	2.77	1.54	1.70
21	TECHGOOD	2.14	4.03	1.52	1.92
22	TRADEAG	1.08	4.01	1.38	1.74
23	DOWNGOOD	1.51	8.01	0.51	1.17
24	CHANGE20	2.23	6.86	1.18	1.84
25	TRADEJOB	1.33	7.26	0.55	1.08
26	WHYGASSD	2.67	10.13	0.29	0.85
27	PRES	0.29	1.73	0.79	0.91
28	GASPRICE	-1.73	-8.34	1.71	1.19
29	NEWJOB	1.43	7.05	0.31	0.88
30	GAP20	0.39	1.51	1.81	1.85
31	INCOME20	1.64	8.61	0.33	0.91
32	WAGE20	0.92	4.69	0.27	0.53
33	NEED2EARN	-0.54	-2.13	0.90	0.84
34	STAN5	1.54	8.26	0.89	1.45
35	CHILDGEN	1.44	7.82	0.95	1.53
36	CHILDSTAN	0.77	3.35	1.27	1.54
37	CURECON	0.31	1.79	2.59	2.76

In studies of cognitive biases, the standard methodology, as Kahneman and Tversky (1982) explain, is to compare subjects to the expert consensus: "The presence of an error of judgment is demonstrated by comparing people's responses either with an established fact . . . or with an accepted rule of arithmetic, logic, or statistics" (1982:493). If the public and the experts disagree, this is routinely taken as evidence of systematic biases in the judg-

ment of the public. The current article takes a more cautious analytical strategy by first controlling for possible biases in the experts' judgments.⁶ Nevertheless, systematic differences between economists and the public are large and robust.

Rational Egoists, Irrational Sociotropes, and Political Failure

Voter Information and Rational Expectations

Political scientists have sensibly questioned the empirical validity of economists' motivational postulate of self-interest. Yet they have done less to question—and have become increasingly willing to appeal to some version of—economists' standard cognitive postulate of rational expectations (Marcus and Hanson, 1993; Page and Shapiro, 1992, 1993). The assumption that voter errors are random rather than systematic is fundamental to recent arguments that aggregate public opinion is rational. While this is fairly plausible for the "who did what to whom" sort of questions most studies emphasize, these are probably the electorate's *easiest* problems. One also needs a set of implicit economic models to ascertain which policies to encourage politicians to pursue.

Intuitively, model selection seems like a much more difficult task, and the SAEE evidence bears out this intuition. Empirically, systematic economic confusions are widespread. People are more likely to underestimate the benefits of interacting with foreigners than overestimate them, to blame business greed rather than impersonal market forces for price increases, and to neglect the rule of economic progress in favor of the exceptions of deterioration.

Of course, the SAEE samples the entire public, and voters are self-selected. Is it prudent to extrapolate from the SAEE to the electorate? There are strong reasons to answer affirmatively. The SAEE includes a measure of voter registration. Adding this to the set of independent variables and re-running all of the preceding equations shows that the beliefs of registered voters are essentially identical to their counterparts'; the coefficient on the registration variable is significant in a total of one equation out of 37, less than expected by chance. Thus, we can fairly safely move from the SAEE sample to voters using the *Statistical Abstract of the United States* (U.S. Census Bureau, 1999). Empirical studies of voter participation normally single out education and age as its chief determinants. The SAEE's noneconomists are actually slightly more educated than the average voter (+0.34 standard deviations versus +0.22) but a little younger (−0.07 standard deviations versus +18). Given the strength of the connection between economic beliefs

⁶Within the economist subsample, interestingly, belief dispersion is largely random. The consistent correlates of belief are largely limited to ideology and party identification. For more discussion of economists' beliefs, see Caplan (2001b).

TABLE 6
Motivation, Cognition, and Efficiency

Case	Properties	Standard Motivation?	Standard Cognition?	Efficiency Ranking
(i)	Rational and Egocentric	√	√	2nd
(ii)	Rational and Sociotropic		√	1st
(iii)	Irrational and Egocentric	√		3rd
(iv)	Irrational and Sociotropic			4th

and education, and their limited connection with age, we should, if anything, expect real voters' biases to be smaller than average citizens', but *larger* than the typical SAEE respondents'.

Political Failure and the Economic Approach to Politics

The economic approach to politics is often seen as a source of pessimistic conclusions about democracy's performance (Barber, 1993; Mansbridge, 1990; Held, 1990). Rational political failure arguments frequently appeal to voters' egocentricity to get off the ground. Yet recent research sheds doubt on the robustness of this view. Wittman (1995) makes a forceful case that when people on average hold correct beliefs and vote where they believe their material interests lie, the democratic process works extremely well. Voters know what policies serve their interests, politicians have to satisfy voters to win, and political bargaining eliminates the remaining inefficiencies inherent in majority rule.

Assuming Wittman's analysis on this point is largely correct, what are the normative implications of *relaxing* one or both of the standard assumptions about voters' constitution? Logically, there are four possibilities, as Table 6 illustrates: (i) is just the familiar case, where voters are rational and egocentric. That leaves three nonstandard combinations to consider: (ii) voters are rational but sociotropic; (iii) voters are irrational but egocentric; and (iv) voters are both irrational and sociotropic.

Rational and Sociotropic. No matter how well democracy functions with rational egocentric voters, democracy with rational sociotropic voters would have to be better. Egocentric voters oppose socially beneficial policies when they are personally harmful, but sociotropes support them regardless of the personal consequences. If conflicts between personal interests and social benefits arise, the average welfare level of the sociotropes will be greater. But are such conflicts likely to be large or frequent? Probably not. If the net benefits of a policy are positive for a majority but negative for society overall (e.g., rent control), the losing minority and the gaining majority can strike a mutually beneficial political bargain. Indeed, transactions costs are typically

lower in politics than in markets precisely because politics does away with the burdensome requirement of unanimous consent (Wittman, 1995).

From a slightly different perspective, it could be said that self-sacrifice and vote trading are close political substitutes. Sociotropic voters rely on the former, while egocentric electorates use the latter. Both are methods for reconciling social welfare and majority rule. In neither case must voters quietly endure inefficient political equilibria.

Irrational and Egocentric. The case for democratic efficiency is much less robust to changes in the cognitive assumption. If the judgments of the electorate are systematically biased, policy will be tailored to how they *think* the world works rather than how it *does* work. The more severe the bias, the poorer the match between popular policy and efficient policy is likely to be. This is basic optimization theory—if you are wrong about the true state of the world, your efforts will be misdirected. A farmer who expects the price of wheat to be \$10 will grow less than if he expected it to be \$15; if it turns out to be \$15, he misses an opportunity. The same holds for policy.

Antiforeign bias, for example, might lead selfish voters to support trade barriers even though all of them would be richer under free trade. If this bias were mild, policy might deviate only slightly from its socially optimal level. But the SAEE evidence indicates that severe biases are in fact common. For example, controlling for all other factors, 70 percent of the general public believes that “companies sending jobs overseas” is a “major” problem, compared to only 19 percent of economists. Acting on *perceived* self-interest, irrational egocentric votes would be likely to vote for strong protectionist policies, even if protectionism makes a majority poorer.

Irrational and Sociotropic. Just as an egocentric voter needs a sound economic model to determine which policies are in his *own* interest, a sociotropic voter needs a sound economic model to determine which policies are in *society's* interest. These cognitive requirements open up a gap between good intentions and good results. If voters' sole objective is to vote for socially optimal policies, misperceptions about the structure of the economy can only be for the worse.

Suppose, for instance, that the electorate systematically underuses textbook supply-and-demand analysis. Several questions on the SAEE suggest such a tendency. Respondents often see price increases as the product of (changes in?) business greed, not market adjustment to fluctuations in supply and demand. Given such misconceptions, it is easy to see why sociotropic voters might respond to a rise in the price of oil with counterproductive policies such as price controls. When they try to figure out what the socially optimal policy is, they overlook the shortages and other inefficiencies predicted by standard supply-and-demand analysis.

The overall effect of mistaken economic beliefs on policy remains uncertain; estimating it would require a great deal of additional research. But the SAEE suggests a variety of promising margins to study. Protectionism and price controls are only the beginning. Policy-induced labor market rigidities could easily be linked to the public's concerns about downsizing and technologically driven unemployment. Mistaken beliefs about real income and real wages might bolster support for industrial policy. While it is conceivable that "one-size-fits-all"—that one policy is best for society no matter how the world looks—this is rather far-fetched.

Economic Assumptions and Democratic Pessimistic

Does democracy look better or worse after the standard economic assumptions give way to a more realistic picture of voters? Most critics of the economic approach to politics have maintained the former. Their conclusion is plausible insofar as they are relaxing the self-interest postulate alone, i.e., they weigh Table 6's Case (i) against Case (ii). But the empirical findings from the SAEE make a comparison between Case (i) and Case (iv) the relevant realist exercise: How do democratic polities comprised of sociotropic but irrational agents compare to ones inhabited by rational and egocentric agents? The last column of Table 6 summarizes my tentative conclusions.

Case (ii) clearly welfare-dominates Case (i). But how big is the difference? As the previous section argued, it is likely to be modest. Egocentric electorates can reconcile efficiency and majority rule with vote trading. Case (ii) also clearly welfare-dominates Case (iv). But here the gap could easily be large. Antiforeign bias might lead voters to support high trade barriers even though everyone would be richer under free trade. Underuse of textbook supply-and-demand analysis could prompt voters to insist on public provision of goods the market can provide more cheaply.

In sum, then, Case (i) is likely to be slightly welfare-inferior to Case (ii), whereas Case (iv) is likely to be appreciably worse than Case (ii). If so, it follows that Case (i) welfare-dominates Case (iv). Real democracies are probably *less* efficient than standard economic assumptions imply. Why? Sociotropes under the influence of systematically mistaken ideas will eagerly support harmful policies that rational egocentric agents would never consider. In a world inhabited by rational self-interested agents, winning policies at least have to benefit *someone*.

Finally, how does Case (iii) compare to Case (iv)? There is no clear-cut answer here, but after relaxing the rational expectations assumption, it becomes much less obvious that political performance increases with the strength of the electorate's sociotropic orientation. Instead, egocentric motivation plausibly starts to moderate the excesses of democratic performance. Suppose that egocentric voters systematically misunderstand supply-and-

demand analysis. This changes their votes via their perceived self-interest, but it does not change everyone's votes in the same way. At least some fraction of egocentric votes would see themselves as *beneficiaries* of "gouging." This dampening effect would not arise with sociotropic voters, who would consider only the perceived social harm of unrestrained greed. When voters are rational, egocentric motivation makes it more difficult for democracy to reach a social optimum; when voters are irrational, egocentric motivation makes counter-productive policies less likely to prevail.

Conclusion

The empirical portion of this article uses the SAEE to test and reject two elements standard in economic models of the political process. The first finding may be controversial to economists, but should come as no surprise to political scientists: Ideas, not self-interest, are the main determinant of people's economic beliefs. Education and ideology are the strongest predictors, and income is virtually the weakest. The second finding may be controversial for both economists and political scientists: public opinion contains not just random errors that cancel out, but predictable biases.

Economists' pessimism about the efficiency of democracy has often been blamed on their unrealistic assumptions. Matters are actually more complex. Substituting a sociotropic view of citizen motivation for the unrealistic egocentric account leads to slightly greater optimism about democracy if all other standard economic assumptions stay fixed. But making an additional concession to realism by relaxing the rational expectations assumption markedly amplifies the dangers of political failure. On the whole, adopting more realistic views of both voters' motives and their cognition makes democracy look worse, not better.

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