

Reconsidering the Rational Public: Cognition, Heuristics, and Mass Opinion

James H. Kuklinski

Paul J. Quirk

University of Illinois at Urbana-Champaign
Department of Political Science and
Institute of Government and Public Affairs

December 31, 1998

For Arthur Lupia, Mathew McCubbins, and Samuel Popkin, eds., Elements of Political Reason
(forthcoming Cambridge University Press).

There has been a marked change in the way political scientists think about the American citizenry. Beginning with the advent of survey research in the 1940s, students of public opinion took a dim view of citizens' political capabilities. Consistently finding a public profoundly lacking in political knowledge and sophistication, they became skeptical of the individual citizen's ability to make intelligent political decisions or to participate effectively in the political process (see Kinder 1983 and Sniderman 1993 for comprehensive reviews).

Over the past decade, leading scholars have offered grounds for a much more positive view of citizen competence. They do not dispute the finding of widespread political ignorance or claim that the citizen's command of politics has recently improved. Rather, they offer two arguments to suggest that even an uninformed citizenry can participate in politics competently. One is that individuals use heuristics--mental shortcuts that require hardly any information--to make fairly reliable political judgments. By this means, Sniderman, Brody, and Tetlock (1991, pp. 19) write, "people can be knowledgeable in their reasoning about political choices without necessarily possessing a large body of knowledge about politics." The other argument is that public opinion is rational in the aggregate, even if individual opinion is prone to error (Page and Shapiro 1992; see also Converse 1990). Individual errors cancel out in the process of aggregation, and thus collective opinion conveys real and true information about the citizenry's preferences.

The two proposals struck a chord among political scientists. Sniderman, Brody, and Tetlock's Reasoning and Choice (1991) and Popkin's The Reasoning Voter (1991) stimulated widespread attention to political heuristics.¹ Subsequent studies also found that individuals

achieve a kind of rationality generally adequate to the tasks of citizens (see, for example, Lupia 1994, Lupia and McCubbins 1998 and Mondak 1993). Page and Shapiro's The Rational Public (1992), along with work by Stimson and colleagues (Stimson 1991 and Stimson, MacKuen, and Erikson 1995), resurrected research on the properties and movement of collective opinion, concerns that students of American politics had overlooked for years.

The enthusiasm for the political-heuristics and collective-opinion approaches is understandable. Each defines an agenda of significant research. Both offer plausible mechanisms for competent citizen performance and both have produced significant supporting evidence. Not least, the notion of a competent citizenry is normatively attractive. It buttresses efforts to expand citizen participation and credits the citizenry for some of American democracy's success.

Nevertheless, we propose an alternative perspective that is more skeptical about the citizen's competence--especially in choosing policy preferences, responding to policy rhetoric, and influencing policymaking. In the pages that follow, we first review the work on political heuristics and collective opinion. Although both bodies of work make major contributions, we argue that the research does not warrant broad claims of citizen competence. Indeed, it leaves open the possibility of significant distortions in public opinion. We next note that research in the basic sciences of human cognition—neural science, cognitive psychology, and evolutionary psychology—has converged on several findings that are relevant for models of mass politics. Contrary to the political heuristics and collective opinion perspectives, these findings make it unlikely that human cognition is well adapted to the tasks of citizens. We then review a variety

of evidence focusing on distortions specifically in political judgment as well as their consequences for collective opinion and policymaking. Most of it comes from our own experimental survey work, some of it from so-called deliberative polls and recent developments in public policy. Taken together, it suggests that the public is prone to send misguided signals to policymakers. In closing, we summarize briefly and comment on some implications of recent trends in American politics.

POLITICAL HEURISTICS, COLLECTIVE OPINION, AND THE “RATIONAL PUBLIC”

To what extent has a compelling case been made for a politically competent, rational public? In this section, we first take up the work on political heuristics, which raises the most fundamental considerations, and discuss it at length. We then consider more briefly the literature on collective opinion.

Political Heuristics

Advocates have identified many kinds of political heuristics. In elections, the classic voting cue is of course the political party (Campbell, Converse, Miller, and Stokes 1960). By merely attending to party labels, voters can compensate for a lack of reliable information on the candidates' policy positions. Popkin (1991) identifies a multitude of other voting strategies on which people can draw. These include attributing issue positions on the basis of a candidate's demographics or those of his supporters; using evidence about personal character to make

inferences about political character; assuming that the president controls the economy; and using returns in early presidential primaries as evidence on the candidates' merit.

In judging either candidates or policies, people can use public statements by elected officials, interest-group leaders, or others as cues. Citizens who know very little about a pending bill, for example, can look to the statements of particular office-holders they have come to trust (Carmines and Kuklinski 1990; Mondak 1993). Alternatively, they can consider the positions of interest groups whose policy preferences they are generally inclined to support or oppose (Lupia 1994). Such cues arguably eliminate the need for substantive information about an issue.

Among the most provocative heuristics political scientists have proffered is Brady and Sniderman's likability heuristic. Brady and Sniderman (1985) argue that people can use the likability of certain political groups--blacks and whites, liberals and conservatives--to make reasonable judgments of where they stand on policy. To use the heuristic, a person must have relevant policy preferences and also have affective responses toward a pair of groups. He can then attribute a position close to his own to the liked group and a more distant position to the disliked group—in effect, using his feelings toward the groups as information about their positions.

That citizens apparently can draw on such a variety of heuristics is fortunate. For one thing, the rules of thumb that scholars have identified cover the two primary tasks that citizens perform: voting and evaluating public policy. For another, most citizens face conditions of limited information most of the time. By any serious standard, even the *relatively* well informed

fall short of being *well* informed. So, political heuristics would seem indispensable to any citizen who is trying to make a well-grounded judgment.

But have researchers convincingly made the case that citizens achieve, in Popkin's words (1991), "low information" or "gut" rationality? For students of heuristics to make their case, they need to show, first, that most citizens routinely use certain heuristics and, second, that the use of those heuristics leads to good or at least reasonable decisions. We discuss each issue in turn.

The Use of Heuristics. We accept that people sometimes use the kinds of decision-making heuristics discussed above. A harder question is whether most people use them most of the time. The case for the benefits of a heuristic falters if only a few people use it in the relevant circumstances.

Empirical work in the heuristics tradition has not addressed the frequency with which citizens use heuristics in the real world. It is easy to understand why the data are hard to come by. Such data would describe people's mental processes under real-world circumstances when, for example, they express a policy preference, evaluate a campaign appeal, or decide for whom to vote. And the data would need to be collected over a large number of decision-making situations. To expect such data would be unreasonable.

We therefore pursue a different strategy. It is simply to ask this question: are there reasons to believe that people fail routinely to use the kinds of political heuristics that scholars have posited? We think there are.

First, as we will argue below, a cognitive sciences perspective suggests that people indeed do use heuristics, but hardly as rational strategies specifically tailored for each kind of decision.² Rather, people take their heuristics off-the-shelf, use them unknowingly and automatically, and rarely worry about their accuracy. An inherent part of human nature, these broader, less discriminating sorts of heuristic generally trump strategic decision-making.

Second, as Delli Carpini and Keeter (1996, pp. 51-53) observe, people often lack the contextual knowledge needed to use heuristics intelligently, or in fact to use them at all. For a voter in a primary election to learn significantly from an earlier primary in another state, for example, he would need to know whether that state is generally liberal or conservative. Most citizens undoubtedly lack the necessary command of political geography.

Finally, the information necessary to use heuristics might often be missing from the citizen's environment. Consider cue taking. When researchers provide people with statements attributable to prominent groups or political leaders, they readily take the cues (Carmines and Kuklinski 1990; Lupia and McCubbins 1998; McKelvey and Ordeshook 1990). In the political world, however, usable cues are not regularly available. Statements by leading officials endorsing or opposing proposals in Congress appear infrequently on network news programs (Althaus 1996). If cues do not appear, citizens cannot use them.

These arguments are admittedly only speculative. Nevertheless, they identify potential barriers to the effective use of political heuristics. They suggest that citizens might actually employ some of the heuristics proposed in the literature less often than scholars have implied.

Heuristics and Good Political Decisions. Putting the question of actual use aside, we now examine the central claim of the heuristics literature: that by drawing on certain heuristics, citizens reach sound judgments. In labeling judgments as “good,” “sound,” or “competent,” the difficulty is to find criteria independent of the decision making process. Scholars cannot deem a judgment good simply because people reach it by using a heuristic, or because they feel satisfied with it.³ Unfortunately, as in any other public-opinion research, definitions of quality for important political opinions turn on values, debatable facts, or both. In general, we can discriminate between better and worse political opinions only by positing normative criteria, which are in all cases open to criticism (Price and Neijens 1997).

To their credit, students of political heuristics have not punted on the question of competence, a safe move, but one that makes public-opinion research irrelevant to any assessment of democratic politics. In dealing with it, they have employed the same general strategies that any scholar would have to rely on. In some instances, they have relied on their own political knowledge, or that of other experts, to designate a decision as right or wrong, good or not-so-good, or to judge the worth of a given kind of information. In others, they have identified a criterion group--assumed to be well informed and yet otherwise representative of the appropriate population--and then tried to ascertain how closely people’s judgments resemble those of the criterion group.

To repeat, we have no quarrel with these general strategies for assessing competence, as such. We do question, however, some of the heuristics advocates’ applications of the strategies

and the conclusions they have reached about the effectiveness of certain heuristics. To show why, we briefly discuss four examples.

1) In his study of voting on the California automobile insurance referendum, Lupia (1994) shows that relatively uninformed voters who had access to a relevant cue were able to mimic voters who had somewhat more information. Specifically, voters who knew only the insurance industry's position on the competing propositions voted similarly to a criterion group that scored in the top third on a multiple-choice test on the key provisions. Both groups voted differently than people who had neither kind of knowledge. In short, knowing the industry position apparently worked as well as knowing the specific provisions.

As Lupia himself stresses, however, this finding demonstrates competent performance by the industry-cue takers only if we assume that those who knew the provisions relatively well were indeed adequately informed. In fact, there is no evidence that they knew much at all about the merits of the debate. As we stated earlier, being *relatively* well informed falls far short of being well informed. In fact, the relatively well informed voted as one would expect of uninformed citizens. They massively supported a proposition-- the winner in the referendum-- that mandated a 20 percent rollback of automobile insurance rates. The appeal of a price rollback to voters is no mystery. But such a measure is rarely warranted in a competitive industry. Moreover, economists and insurance experts overwhelmingly oppose rate controls for automobile insurance (Lascher and Powers 1997). And in any event, the California measure was not successfully implemented. A similar measure adopted in Ontario, Canada was quickly reversed. In our view, the evidence from the California referendum suggests that even relatively

well informed citizens responded heavily to extraneous factors—dislike of insurance companies and wishful thinking about their rates, for example--rather than making an informed assessment of the merits.

2) Another rule of thumb is to evaluate the incumbent president on the basis of the economy's current performance (Popkin 1991; also see Key 1966 and Fiorina 1981). In using this heuristic, Popkin suggests, voters make a "simplifying assumption" that the president controls the economy. That assumption is not just a simplification, however. It is mostly false. A commonplace of informed commentary is that the president's ability to influence short-term economic performance is exceedingly modest (Woolley 1998, Hibbs 1987, p. 255-279). Thus the economic-conditions heuristic captures little information about a president's skill or priorities. For the most part, it merely rewards good economic luck and punishes bad. To the extent that it creates incentives for presidential management, those incentives are notoriously perverse—favoring the sacrifice of long-term growth and monetary stability for a small boost in current activity, especially in an election year (Nordhaus 1975; Tufte 1978).

3) In a cleverly designed study, Mondak (1993) shows that when Reagan's endorsement was mentioned in poll questions about policy issues, people used it as a cue to form preferences. Moreover, the effect varied with Reagan's approval rating: the more popular he was, the greater the effect of his endorsement. In one sense, this looks like discriminating cue taking. But consider this: Reagan's policies did not vary with his popularity. Nor therefore did the policy significance of his endorsement. Thus the evidence on the effects of Reagan's approval does not

indicate rational cue taking aimed at achieving desired policies. Rather, it points to the effect of a source's prominence or attractiveness on persuasion.

4) As we noted earlier, Brady and Sniderman offer the likability heuristic (1985) as a method for people to identify the preferences of certain groups. Oddly, however, this heuristic entails people's doing just the opposite of what Lupia's California referendum voters apparently did. In the California study, voters used a group cue—the insurance industry's position on the referendum—to form their preferences. In the likability study, people already have preferences, and they combine them with feelings toward groups to estimate the groups' positions. Taken together, the two studies suggest a circular argument that preference formation depends upon group cues and yet attribution of group positions depends upon prior preferences. For the argument that likability leads to competent decisions to be compelling, its advocates will have to break out of this circular argument and show that people's existing preferences are in some sense “right.”

In the end, we are not saying that political heuristics are never helpful or even that these authors' claims for the advantages of various heuristics are clearly wrong (see Mondak 1994 for a generally positive review). We do not doubt, for example, that using party labels to evaluate candidates leads individual voters to the right candidate choice, in view of their policy preferences, most of the time (Lau and Redlawsk 1997). Rather, our point is simply that the benefits of the heuristics described in some of the leading studies are in fact debatable.

Accordingly, any broad conclusion that people achieve competence via heuristics is also debatable.

Collective Opinion

Ironically, the collective opinion perspective proceeds from the very same finding whose dismal implications it has sought to overcome. Thirty years earlier, Converse (1964) had found massive instability over time in individuals' attitudes about politics. In his view, this instability indicated that most citizens did not even have true attitudes about political issues and thus answered survey questions, in effect, randomly. In a remarkable turnabout, collective opinion scholars have found a basis for optimism in this very randomness.

Individual-level randomness, they contend, implies that aggregated opinion can readily be quite rational and well behaved. The individual-level errors, because random, will cancel out; and collective opinion will move, as it should, mainly in response to real-world events. A popular saying warns, facetiously, "bad information drives out good information." The collective-opinion school claims almost the opposite: bad information drives itself out; good information survives.

In our view there are grounds for skepticism about the benefits of aggregation. First, it is far from clear that the errors in individual citizens' political judgments are largely random. Modern research in cognitive psychology has shown that bias and distortion are systematic properties of human cognition (Kahneman, Slovic, and Tversky 1982; Nisbett and Ross 1980). People process information in similar, imperfect ways; so in dealing with the same information,

they tend to make the same mistakes. Moreover, in some Monte Carlo simulations, Althaus (1996, ch. 3) has shown that collective opinion can be quite sensitive to such error. He shows that unless the proportion of informed individuals is very high, or systematic error is indeed minimal, the error in collective opinion is often sizeable. In short, there is no safety in mere numbers.

Second, advocates of collective rationality assume that citizens will receive reliable information from the media, interest groups, or public officials. In fact, the information these sources provide--presumably the citizens' main connection with the real political world—can easily be severely unbalanced and not particularly helpful. Put aside concerted efforts by politicians to deceive the public.⁴ Even in their normal policy making activities, elected officials make no effort to provide objective information. They use whatever rhetorical devices are likely to work. There is no presumption that the balance of effective rhetorical opportunities in a political debate happily reflects the balance of real information with respect to it. Indeed, the public itself will sometimes induce pronounced biases in the information that it receives. If the public has strong pre-dispositions about an issue, politicians will avoid taking positions or providing information that challenges those pre-dispositions. For example, if people reflexively oppose raising taxes, or if they have an irrational fear of chemical wastes, elected officials likely will not offer opposing views.

Let's turn now to the empirical evidence that scholars have presented to support claims of collective rationality. It indeed demonstrates some reassuring properties of collective opinion.

Overall, though, the evidence falls short of supporting broad claims of a rational public; in fact the findings do not rule out significant collective bias.

The principal study is Page and Shapiro's (1992) monumental analysis of the movements of aggregate opinion recorded in fifty years of opinion polls. This study clearly establishes two findings. First, collective opinion is normally stable, with dramatic change very unusual. The public is rarely seized by the "momentary passions" so deeply feared by the Founding Fathers. Second, collective opinion responds to changing conditions and information in intelligible ways. The movements of opinion are not arbitrary. Support for defense spending has increased with international tensions, support for anti-poverty and employment programs with unemployment; and so on.

These findings are also quite consistent, however, with an error-ridden collective opinion. One reason is that Page and Shapiro do not specify, a priori and in any discriminating fashion, what patterns of change should count as rational. In some cases, the favorable interpretation is debatable. Should support for defense spending really vary with international tensions? Considering that a strong defense is needed for deterrence even in times of apparent harmony, perhaps not. That world conflicts influence citizen support for defense is understandable, not necessarily rational.

More important, such patterns of change do not speak to biases that might exist more-or-less constantly over a long period of time. Suppose that during the Cold War, the public consistently supported a defense budget that was twice as large as an informed assessment would

have recommended. Off the mark by 100 percent, this support could appear rational by Page and Shapiro's criterion, so long as it varied with the level of international tension. Similarly, collective opinion could favor unrealistically low taxes and yet still respond to the budget deficit; it could favor excessively harsh criminal sentences and still respond to crime rates; and so on. The movement of collective opinion cannot speak to constant biases in that opinion.

The research on collective opinion should relieve some of the worst fears about mass politics. The public does not become agitated for slight cause or demand policies completely lacking elite support. The research fails fully to demonstrate, however, that public opinion is consistently a constructive force, expressing the public's true preferences fairly accurately. As with the empirical work on political heuristics, the findings do not rule out even major distortions in public opinion.

In the next section, we set out some basic propositions of a different approach to studying mass opinion--one that draws on recent developments in basic research on human cognition (also see Lupia and McCubbins 1998).

A Cognitive-Sciences Perspective: Hard Wiring, Evolution, and the Tasks of Citizenship

Theories of mass political behavior, in our view, should build upon and comport with basic findings about human mental processes in the cognitive sciences--including cognitive psychology, evolutionary psychology, and even neural science. Some of the convergent findings

in these fields have considerable bearing on the debate about citizen competence.

Basic Findings on Human Cognition

In particular, six broad findings of recent cognitive-sciences research are highly relevant for developing well-grounded theories of mass behavior.⁵

1. Much of human cognitive capability is "hard-wired," built into neural circuitry that is part of our genetic inheritance. Children learn to speak, infants recognize some laws of physics, and people become intuitive psychologists--in each case sooner and with less effort than would be needed for a tabula rasa. Such hard-wired capabilities substantially reduce each individual's need for learning. They also, however, reduce flexibility. People's mental processes are only partly shaped by the experiences and requirements of their own lives.

2. Natural selection designed these hard-wired mental processes to meet the demands of survival and reproduction that faced our human ancestors, primarily in the Stone Age. These humans lived by foraging in small nomadic bands on the African savanna. The crucial tasks were self-defense, finding food and shelter, mating and child rearing, and achieving social cooperation for these purposes. We still have the mental equipment that evolved in this environment. The entire period of agricultural and industrial civilization, about one percent of human history, has been too short to produce further biological adaptation.

Our minds thus are not designed to deal with the demands of contemporary technological societies. As Pinker writes (1997, pp. 42): "They are not wired to cope with anonymous crowds, schooling, written language, government, police, courts, armies, modern medicine, formal social institutions, and other newcomers to the human experience." He could have added all the

apparatus of democratic politics: the media, elections, referenda, political rhetoric, and opinion polls. Of course, all of these institutions are designed to function with humans; they cannot be completely alien. Nevertheless, human capabilities and dispositions are often problematic for their functioning. Parents and teachers invest enormous effort, for example, inducing children to study in school. If nomadic foragers had needed book learning to survive, it would come more easily now.

3. The mind is not a single, general-purpose calculator that applies universal principles to deal with all kinds of problems. Human mental capacities are "modular," that is, domain-specific and independent: one module for mothering, another for attending to danger, another for judging character, and so on. These modules contain very specific built-in assumptions about how the world works and what responses are useful. They are deployed automatically, without conscious thought, and have limited flexibility. Metaphorically, we look quickly for an appropriate mental tool; if we pick up a hammer, whatever we are dealing with gets pounded.

Although the general capability for critical reasoning can intervene and correct faulty assumptions in some of these processes, it plays a minor role in many decisions. Indeed, competence in reasoning depends heavily on learning in context. Experiments have shown that people do poorly at applying abstract logic in the absence of detailed contextual knowledge (Wason 1966; Cosmides 1989). We can figure out what follows from "all cows eat grass" mainly because we know a lot about cows.

4. Under many circumstances, people make judgments in notably unreliable ways without realizing that they are doing so. Psychologists distinguish between "central" and "peripheral"

processing (Fiske and Taylor 1991, pp. 475-480). In central processing, used when attention and motivation are high, people employ more mental resources, think more systematically, and allow data to shape inferences. In peripheral processing, used when attention and motivation are low, they employ fewer resources, rely on simple heuristics, and use top-down, stereotypic inferences (Fiske and Taylor 1991, pp. 475-480).

Peripheral processing is not simply an abbreviated or economical version of central processing--as in the abandoned notion of the "cognitive miser" or the current notion of "low-information rationality." It uses quite different strategies. And importantly, people do not take account of the shortcomings of peripheral processing by making tentative judgments, or discounting conclusions for their uncertainty. Rather, they use problematic methods without recognizing their character and take the results for granted.

5. Human emotion systems interact with cognitive processes in complex and subtle ways. On the one hand, emotions are indispensable for decision-making (LeDoux 1996). Inarticulate "gut feelings" often reflect real information that is not available for conscious processing (Schwarz and Clore 1988). Rationality often breaks down in brain-damaged patients who cannot experience emotions (Damasio 1994). On the other, because emotions rely on learning and memory systems that work very differently from those involved in cognitive processing, they also adversely affect thinking and rationality. From the standpoint of making sound judgments, emotion systems are too easily conditioned, over-generalizing from isolated episodes. They make crude inferences, recognizing few distinctions. And they resist revision, recording emotional memories essentially permanently. Moreover, most of the effect of the emotions is

unconscious, not subject to rational scrutiny. And in the constant interaction between emotion and cognition, emotion generally dominates.⁶

Some of the consequences are widely recognized. As LeDoux notes (1996, pp. 228-230), we have too many fears. Many people suffer debilitating mental illnesses, which are mainly of emotional origin. More relevant for politics, emotions distort judgment even among the mentally healthy. We need not assume that these properties of the emotion systems are adaptive in every context or even in general. LeDoux speculates that the brain is still evolving toward a more balanced relation between emotion and cognition.

6. Finally, cognitive processes generate systematically false beliefs to promote certain kinds of behavior (Barkow, Cosmides, and Tooby 1992; Hauser 1996; Pinker 1997). Perhaps best known, people hold high opinions of groups to which they belong and low opinions of those to which they do not. Thus, for example, soldiers see their fellow troops as braver, smarter, and stronger than the enemy. However inaccurate such perceptions might be, they help to sustain cooperative ventures. People also fool themselves about their own dispositions and capabilities. One function of such self-deception is to make our promises and threats appear more convincing to others (Hauser 1996). There are other cognitive distortions--such as overconfidence, the confirmation bias, and biases of causal attribution—that also nudge behavior in various ways.

The behavioral effects of these built-in distortions were presumably advantageous in the evolutionary past. In all likelihood, many are still useful. But the skewed perceptions will sometimes do harm. In particular, they will undermine performance in those tasks that mainly require accurate judgment.

Implications for Mass Politics

What do these findings imply for the study of politics? They do not directly predict specific patterns of political behavior. We believe, however, that they have three general implications for mass politics.

The Presumption of Adaptability. First, researchers should not presume that any particular feature of human cognition is well adapted to the tasks of citizens. In view of natural selection and the capacity for learning, we expect cognitive processes to be highly adaptive in some global sense; nothing about how people think will be simply pointless or unfortunate. Even so, we can account for departures from "low-information rationality" in politics in several distinct ways.⁷

People might rely on decision-making processes that perform satisfactorily in other areas of life but that are less suitable for politics. For example, people may have learned to employ certain criteria for choosing friends, work partners, and so on. If they use these same routines to choose political leaders, they might overlook criteria that are uniquely important to evaluating leadership.

Moreover, people may use cognitive processes that produce dysfunctional responses generally--not only in politics or other special contexts--because they promoted survival and reproduction in the ancestral environment and have been incorporated in the genetic code. Considering the transformation that has occurred in the conditions of human life since the Stone Age, there seems to be hardly any limit to the potential for such malfunctions. What worked for nomadic hunter-gatherers could easily fail badly for citizens of a post-industrial democracy.

Although we can only speculate here about the role of evolved responses in mass politics, we suspect that the conditions of the ancestral environment help to account for some important aspects of political behavior. Judging from anthropological research, ancestral humans fought frequent wars and faced a high likelihood of death by homicide (Barkow, Cosmides, and Tooby 1992; Pinker 1997). The hazardous conditions presumably rewarded stereotyping, ethnocentrism, and quick-trigger responses to fear and anger, major traits that frequently create conflict in modern politics. Our Stone-Age ancestors also lived a precarious existence economically. They were in danger of starvation; and yet, lacking money and refrigeration, they had little ability to store surpluses. On the one hand, therefore, any substantial loss of resources might be fatal; but an equivalent gain might largely go to waste. Such conditions may underlie people's well-documented tendency to discount gains in relation to losses (Kahneman and Tversky 1984; Tversky and Kahneman 1981).

Finally, ancestral humans also lived in an information environment radically different from ours--with no writing or formal arithmetic, few concerns about remote consequences, and little or no specialized knowledge. This environment may account for the relative ineffectiveness of abstract and systematic information in persuasion (Cacioppo and Petty 1979; Cacioppo and Petty 1985): to the extent that we possess evolved processes for responding to persuasion, they are not adapted for this new-fangled information. And it is understandable that the source of a message, how strongly it is expressed, and how it fits people's existing beliefs will often shape their responses more than any rational assessment of its content (Hauser 1996; McGuire 1969, 1985).

For all of these reasons, then, we cannot assume that the cognitive processes people use in making a particular political judgment are well adapted to that use. To the contrary, if close observers see such processes as irrational or generally misleading, they probably are.

The Nature of Heuristics. A second broad implication of the cognitive sciences perspective, implicit in the first, is that we should expect systematic bias in heuristic judgments. Ironically, political scientists have borrowed the concept of heuristics from psychology while overlooking its main significance in that literature. Viewing heuristics as rational strategies for dealing with ignorance, political scientists have stressed how they enhance competence. They have not looked for problems with them.

For the most part, cognitive psychologists look at heuristics differently. They see the use of heuristics as automatic, unconscious, and frequently dysfunctional (see, for example, Nisbett and Ross 1980; Kahneman, Slovic, and Tversky 1982). Research has shown that people use arbitrary starting points to anchor estimates, use accessibility in memory to estimate frequency; use a source's attractiveness to judge her credibility; and draw inferences from predetermined scripts and stereotypes. In cases that do not fit their implicit assumptions, heuristic judgments produce serious departures from rationality. For the most part, as Piattelli-Palmarini (1994, pp. 6-7) writes, the resulting errors are "inaccessible to correction." We use unreliable rules-of-thumb with no awareness of doing so.

That the political scientists' concept of heuristics differs from the psychologists' does not make it incorrect. To a large extent, the difference reflects distinct starting points and standards

of comparison. The psychologist starts with the layperson's common-sense perception that people are generally rational. (We feel at least that we ourselves are rational.) Heuristic judgments disappoint such expectations, often profoundly. In describing their effects, therefore, psychologists highlight the error. Political scientists, on the other hand, start with the research showing that people are politically ignorant. They find evidence that political heuristics can save them from being strictly clueless. So unlike psychologists, they are inclined to stress the positive side.

Such differences in perspective and emphasis are largely understandable. What is not warranted, in our view, is political scientists' virtual abandonment of the psychologists' notion of heuristics and its expectation of serious distortion. It is the psychologists' version that comports generally with cognitive-science findings and is supported by extensive laboratory research (Wittman 1995 criticizes the heavily reliance on experiments). Heuristics as discriminating strategies, well adapted for particular uses, is at best part of the story.

Expectations for Citizen Competence. The third and main implication of the cognitive-science findings is that, on the whole, we should not expect a great deal of ordinary citizens' political judgments. In general, people will use available information effectively and make good decisions only under favorable conditions. These occur primarily when a task is intrinsically simple, when helpful capabilities or dispositions are hardwired, or when institutions or other environmental conditions promote competence.

Consider some cases. People usually know what they're doing in mating, mothering, and making friends. The reason is that these tasks have not changed fundamentally since the Stone

Age. People also usually know what they're doing in managing a large investment portfolio, if they have that job. This task is complex and of recent origin. However, portfolio managers are likely to have MBA degrees, they receive rapid and informative feedback, and they have strong incentives for good performance. They even have training and professional literature to help them avoid cognitive biases (Hammond, Keeney, and Raiffa 1998). Unfortunately, the tasks of citizens in a democracy are less conducive to avoiding dysfunction. There are four difficulties in particular.

1. The political process calls upon ordinary citizens to answer very hard questions.

According to some views of this matter, the citizens' task is quite easy (Sniderman 1999, Wittman 1995). The structure of political conflict pares down and clarifies citizens' choices so that they require only a few simple operations: choosing a broad preference about the role of government, such as a liberal or conservative ideology, and matching it up with the appropriate party or candidate (Sniderman 1999). We agree that such a task is manageable for many people. Indeed, we agree that a political process that elicited primarily that form of participation could generally count on satisfactory citizen performance.

But in fact, citizens are invited and sometimes compelled to do much more. In primary elections, the voters select the parties' nominees for various offices, including the presidency. The candidates are not pre-screened for their character, policy views, or governing skills. And party labels are unavailable. Voters have to assess the relevant attributes themselves or live with the results of not doing so.

Moreover, rather than merely choosing a broad direction for government, citizens help to select and even design specific policies. In many states, of course, voters choose policies directly through the initiative and referendum. They can also have a large influence, though less directly, by responding to polls about issues. Most important, in our view, voters respond to campaign appeals about issues. Such appeals, often framed negatively, are the bread-and-butter rhetoric of contemporary campaigns (Ansolabehere and Iyengar 1995). Voters' responses may virtually dictate policy choices.

In exerting such influence, people do not abstract out the ideological location of a policy, signal a preference on that basis, and ignore all of the policy's specific features. They support or oppose entire policies: Clinton's health care reform plan, the Republicans' welfare reform, and so on. Ultimately, they send signals about whatever features actually elicit their response--not just getting tough on crime, for example, but three-strikes-and-you're-out; not just reducing welfare but a two-year limit; and not just responsive government but term limitations. Getting one's preferences right on such specific matters is no easy task.

2) The conduct of political debate makes pertinent, reliable information for these hard political choices difficult to find. Politicians are not in the business of educating the public. Instead, they use rhetoric to trigger the psychological mechanisms that distort judgment. They present isolated, unrepresentative facts; they frame issues tendentiously; and they seek to evoke an emotional response rather than encourage rational deliberation. The media rarely attempt to sort out a debate in an orderly way. Observers of politics are too accustomed to all this to find it

remarkable. But from the standpoint of understanding citizen competence, it is important that the information people receive is typically sketchy, misleading, or manipulative.

3) The structures of modern democracy give ordinary citizens almost no incentive to think carefully about politics. Because informed deliberation is a collective good, individuals lack not only the incentive to be well informed, but even the incentive to use their limited information in thoughtful ways. People make political judgments half consciously, as an incidental part of another activity--such as watching television for entertainment. They employ the error-prone methods of peripheral processing (Cacioppo and Petty 1985). They make little use of their critical faculties, and rarely wonder if their judgments are accurate.

4) Perhaps most important, politics rarely provides usable feedback on the methods people use for political judgment. For comparison, consider the nonpolitical case of a technologically challenged faculty member, Jim, buying a computer for his office. To avoid several days of tedious research, he simply imitates the purchase made by his apparently more expert colleague, Wendy; in brief, he uses a copy-Wendy heuristic. He soon knows if the machine suits him. And he can use that information to decide whether to use copy-Wendy in selecting a printer. His learning about the value of the heuristic depends on his experiencing the consequences of the first decision, obtaining the new computer and finding out whether it works.

Using heuristics in the political domain is entirely different. If a voter uses an irrelevant or misleading cue to pick a candidate, no one tells him his choice was wrong. The candidate might not be elected. If elected, in our fragmented political system, she may not control policy outcomes. And if her policies are adopted, discovering their effects will generally be very

difficult. By the time the candidate's merit becomes clear, if that ever happens, the voter will not remember why he decided to vote for her. Even in the unlikely event that he is interested in improving his political heuristics, therefore, he'll have a hard time doing so.

In short, then, a cognitive-sciences perspective on mass politics suggests that citizens often will make problematic judgments. In the following section, we summarize more direct evidence on the specific causes of dysfunction.

BIAS IN POLITICAL JUDGMENT: EVIDENCE FROM EXPERIMENTAL SURVEY RESEARCH

Our question here is simple: in using political information and making political judgments, do people perform more-or-less rationally? Or do they exhibit sub-optimal behavior of the sort that a cognitive-science perspective predicts?

To answer this question, we present evidence from experimental survey research. Such research can reveal how people respond to specific kinds of information, identify distortions in those responses, and suggest explanations based on well documented properties of human judgment. For reasons we will discuss, considerable caution is required in extrapolating these findings to real-world political behavior. We will address that problem with some additional evidence in the succeeding section.

The evidence comes mainly from studies that one or both of us have conducted with various collaborators (Michael Cobb, Norman Hurley, Robert Rich, and David Schwieder). For

one recently completed analysis, we present data. For the most part, we merely summarize studies that have been reported elsewhere.

Policy Stereotypes

To form sound policy preferences, people should receive and use policy-relevant information in a reasonably balanced way. For example, they cannot systematically screen out information that demonstrates the benefits of a program, or that reveals its adverse consequences. We know that people misperceive the policy-relevant world in various ways--for example, grossly overestimating the proportion of the federal budget that goes to foreign aid. We also know that they have stereotypes of racial and other groups that sometimes affect policy judgments (Judd and Downing 1995, Gilens 1996). We were interested in knowing whether people form stereotypes, or equivalent schemas, that directly concern programs or policies.

To investigate such policy stereotypes, we (Kuklinski, Quirk, Schwieder, and Rich 1997) asked a sample of Illinois residents to make estimates on a series of items about welfare: the percent of all families that are on welfare, the proportion of the federal budget that welfare absorbs, the average annual benefit amount for a family of three, the percentage of welfare mothers who are on welfare for more than eight years, and the percent of welfare mothers who have less than a high school education.⁸ We found that most people made errors in a consistent direction. They had either pro-welfare or anti-welfare stereotypes. As one might expect, the more common stereotype was anti-welfare--with people overestimating the percent of all families on welfare, the proportion of the budget that goes to welfare, the average annual benefit, and so on.

In accounting for these findings, we suggested that people use their welfare-policy stereotypes to fill in missing information about the program, its consequences, and related matters. For a person with a negative stereotype, for example, activating the concept of “welfare” might activate “welfare mothers” and “wasteful spending on inessential items.” These thoughts would permit inferences such as that “welfare benefits are too generous,” that “government spends a lot on welfare,” and so on. The person would then use these inferences to make specific estimates, such as the percentage of the budget that goes to welfare.

We do not yet fully know the dynamics of this process--for example, whether perceptions shape attitudes or vice-versa. Most likely it is both. Nor do we suppose that such stereotypes have similar effects in all policy areas. In certain long-standing policy debates, however, systematically biased policy stereotypes should exacerbate the polarization of conflict, exaggerate the intensity of feelings, and produce greater support for radical measures.

Overconfidence

The highest form of knowledge, Socrates famously observed, is knowledge of one’s own ignorance. A rational citizen would recognize his or her areas of ignorance about politics, and use this awareness in deciding on what matters to withhold judgment, defer to leaders, or look for more information. It appears, however, that people generally lack that ability.

In the same study of welfare attitudes and perceptions we just described (Kuklinski, Quirk, Schwieder, and Rich 1997), we also measured people’s degree of confidence in their factual beliefs. In general, people’s accuracy on the welfare items was little better than random guessing. Yet on any given item, a large majority of the respondents said they were very

confident or fairly confident that their perceptions were right. Even among respondents in the lower two-thirds of an index of accuracy, 20 percent reported feeling very confident on all six factual items. Another 40 percent reported feeling between very and fairly confident on the average item.⁹ To be sure, some of this high reporting of confidence stems from the survey interview process itself; nonetheless, the figures are markedly higher than is justified.

From the standpoint of the psychology literature, it is not surprising that people are overconfident in their political beliefs. As research has demonstrated, people express unjustified confidence in their judgments on a wide range of subjects (Allwood and Montgomery 1987; Griffith and Tversky 1992; Mayseless and Kruglanski 1987). Nor is such expression a mere social convention. In one classic study (Fischhoff, Slovic, and Lichtenstein 1977), many respondents were willing to bet their own money on their inaccurate judgments.

Widespread and pronounced overconfidence in political opinions may have mixed consequences for the political process. On the one hand, it may encourage more vigorous participation. On the other hand, however, it may also obstruct deliberation and learning. In some circumstances, it may undermine appropriate trust in elected representatives.

Resistance to Correction

If correct information becomes accessible, rational citizens would update their beliefs and adjust their policy preferences accordingly. Lack of information should be a matter of costs, not of principle. However, we find evidence that people are inclined to resist or ignore new factual information.

In the welfare study, we gave a randomly selected group of respondents the correct information on the same factual questions about welfare that we described above. To focus respondents' attention on the information, we presented each fact separately (in the guise of asking respondents whether they had heard it), and required a response (yes or no). The group thus had the opportunity to update their preferences in light of new and correct information. We then compared their policy preferences to those of respondents who had not received the correct information--whose beliefs, as we have noted, tended to err in an anti-welfare direction. The preferences of the two groups did not differ. The respondents who received correct information apparently either dismissed it or did not incorporate it in their policy preferences.

To probe the limits of such resistance, we undertook a smaller, second study to find out whether people will use factual information when its relevance to their policy preferences is made obtrusively obvious. We divided student respondents into two randomly assigned groups to receive different versions of a questionnaire. For Group 1, we first asked the respondents to estimate the percentage of the budget that goes to welfare. Next we asked them to indicate what percentage should go to welfare. We assumed that these items would induce the respondents to contrast their estimated and preferred levels of spending. A respondent might think, for example, "About 20 percent of the budget goes to welfare, but only about 5 percent should go to it." Finally, we asked these respondents to indicate their degree of support for welfare spending.

For Group 2, we also asked the two questions about their estimated and preferred levels of spending. Instead of proceeding immediately to ask their support for welfare, however, we then told them the correct figure for actual spending. For most respondents the correct figure

was substantially lower than what they had estimated, and even lower than what they had said they preferred. Such respondents were placed in a situation where the relevance of the correct information was hard to miss. Its salience had been drastically (and artificially) inflated, and it implied that actual spending was already below an acceptable level. In contrast with the lack of response to correct information indicated in the survey findings, Group 2 respondents expressed more support for welfare spending than those in Group 1. In this extreme condition, in other words, factual information made a difference.

There are great difficulties in testing for the effects of correct information in survey research--among them, the uncertain appropriateness of any selection of information, and the inability to match real-world conditions for learning and reflection. With that caveat, we believe these findings are suggestive: people appear to have factual premises that are significant to their thinking about policy issues. In some cases, these beliefs are likely to be stereotyped and highly skewed. If people are given correct information, they likely will ignore it—unless it is presented in ways that virtually compel attention and reflection. But such presentations rarely occur in a large-scale democracy.

The Influence of Easy Arguments

When considering a policy proposal, public officials and others make arguments for or against it, which the media then report. Citizens read or hear some of these arguments, and some use them in varying degrees to make up their minds about the issue. Rational citizens will respond mainly to the substantive persuasiveness of the arguments, and not merely their rhetorical features. In fact, however, people respond disproportionately to certain forms of

argument--what we call “easy arguments”--even when those arguments lack substance almost entirely.

In a recent study, Cobb and Kuklinski (1997) categorized arguments along two dimensions: pro versus con, and hard versus easy. Pro arguments favor a proposal; con arguments oppose it. More relevant here, hard arguments differ from easy ones in their structure, complexity, and ease of absorption. Hard arguments use reasoning or evidence to support claims about the consequences of a proposal. They take some mental work to understand and likely evoke little emotional response. Easy arguments, in contrast, are simple and symbolic, making strong assertions without providing support. They are designed to have emotional impact: “If NAFTA passes, you’ll lose your job.” Hard arguments convey more genuine information than easy ones, which hardly convey any at all.

To ascertain how argument types affect persuasion about policy proposals, Cobb and Kuklinski (1997) conducted an across-time experiment in which subjects received one argument at each of three points in time. They gave different groups different types of arguments (hard-con, hard-pro, easy-con, or easy-pro) and measured subjects’ policy preferences on NAFTA and national health care at the outset of the experiment and after each exposure to an argument. Although the results differed across the two policy domains, easy arguments (especially easy-con arguments) generally had greater influence than hard ones. Pure assertion, which can evoke emotion and is easily represented in memory, is what most readily changes opinion.

The preference for easy arguments will often affect collective opinion. It will cause distortion whenever one side in a debate can appeal to easy arguments, even if largely

misleading, while the other side has more to explain. This occurred, for example, in the brief, one-sided debate over President Clinton's nomination of Lani Guinier to head the Civil Rights Division of the Justice Department. Seizing on her advocacy of cumulative voting systems, opponents labeled Guinier a "Quota Queen" and her ideas "undemocratic." Supporters tried to explain that cumulative voting merely ensures more nearly proportional representation. But that exceedingly hard argument did little to help Guinier's cause. We expect that cases of one-sided advantage in easy arguments are fairly common in political conflict.

Biased Interpretation of Messages

When politicians speak, citizens need to listen. They must do this not only to evaluate leaders and sort them out as allies or opponents, but also to use the politicians' statements as cues to inform their political judgments. Elite messages, however, do not simply pass unchanged through the auditory canals and into the minds of listening citizens. People must interpret them. In doing so, according to some evidence, people often overlook the content of the message, and focus on unreliable peripheral cues.

In the Spring of 1992, Kuklinski and Hurley (1994, 1996) conducted a survey that asked African Americans in the Chicago metropolitan area to answer the following item:

We would like to get your reaction to a statement that _____ recently made. He was quoted in the New York Times as saying that "African Americans must stop making excuses and rely much more on themselves to get ahead in society." Please indicate how much you agree or disagree with _____'s statement.

For each respondent, the ostensible source of the assertion was one of four politicians: George Bush, Clarence Thomas, Teddy Kennedy, or Jesse Jackson--respectively, a white conservative, a black conservative, a white liberal, and a black liberal. Respondents were randomly assigned to one of the four sources, and a fifth group received the statement without attribution. All respondents indicated whether they agreed or disagreed with the statement. At a later point, they were asked to recall the statement. Some interpreted the statement, indicating what it meant to them.

Ignoring the source's ideology almost entirely, the respondents agreed with the statement when attributed to either of the black sources and disagreed with it when attributed to either of the white sources. Two different processes explain this pattern. Some of these African Americans heard the messenger but not the message. As measured by recall, they paid scant attention to the message itself. They based their judgments simply on their trust and affection for the two black political figures. Others heard the message and recalled it, but they interpreted it on the basis of the source's race. When either Bush or Kennedy was the attributed source, blacks construed the statement as "white people are writing us off." When it was Jackson or Thomas, they interpreted it as "we black people can do it on our own." Ironically, it was Jackson and Kennedy who had helped to spearhead the civil rights movement, whereas Bush and Thomas had largely opposed it.

In using race as their primary cue, then, African Americans ignored the most relevant information available to them, namely, the source's political ideology and record on civil rights.

However valuable as a cue a leader's race might be at other times, in this instance it blotted out any awareness of the basic structure of national politics.

Over-Response to Policy Positions

Rational citizens will make some effort to take information for what it's worth. Whenever possible, they will prefer to avoid making decisions on the basis of obviously unreliable inferences. Here too, however, we find that people fall short.

Using other data from the Illinois survey, we considered how people use sketchy information about a candidate's position on a single issue to make voting decisions. Do they discount their judgments on a particular issue when they have hardly any information about it? Or do they treat these judgments as gospel truth?

Our examination of this matter uses two sets of survey questions. One set, incorporating an experimental design, was designed to determine how different pieces of information about a candidate would affect voters' support for him. Respondents were divided randomly into five groups of about 250 to receive different versions of a single question. In all versions, respondents received four items of information about a hypothetical member of Congress who was running for reelection, and then were asked how likely they would be to vote for him. The first three items of information were the same for all groups. Respondents were told that the member was serving his first term; that he had visited the district frequently; and that he had made a speech "that you liked." These common items were intended to establish a moderately favorable presumption in favor of the incumbent.

The experimental manipulation concerned the fourth item, which was different in each group. Group 1 was given the innocuous datum that the incumbent was 47 years old. It provides a baseline, representing the support that would occur with no negative information. Group 2 was told that the incumbent was frequently absent from Congress and had missed a number of important votes. It gauges the loss of support from evidence of a general failure to perform: the electoral penalty for substantial nonfeasance. Group 1 and 2 responses set the upper and lower bounds of support, respectively.

Each of the remaining groups was told of a different hypothetical vote the incumbent had cast--each of which we expected many respondents to disapprove. The statements were: that the incumbent "had voted against a major bill to reduce the budget deficit" (Group 3); that he had "voted to cut medical care for the elderly" (Group 4); or that he had "voted to cut medical care for the poor" (Group 5). We did not identify these items as criticisms. But the items described the votes with the blunt expression of negative campaign advertising. As in such advertising, we provided no information about the provisions of the bill the member had supported or opposed, the rationale for the member's vote, the alternatives, or the likely consequences.

To state the findings simply, people tend to make an electoral mountain out of a policy molehill. In the baseline group (Group 1), only 12 percent of respondents said they were unlikely to vote for the candidate (see Table 1). Given some mildly positive information about an incumbent and no negative information, few wanted to throw him out. Confronted with the habitual no-show, by contrast, 64 percent of Group 2 respondents withdrew support. As we expected, people deemed frequent absence from important votes a serious failure.

Table 1 about here.

Most important, responses in the issue-item conditions resemble those in the no-show case. The vote against a major deficit-reduction bill had the weakest effect, with a rejection rate of 25 percent (Group 3). Votes to cut health care for the elderly or for the poor were more powerful, eliciting rejection from 52 percent and 50 percent of respondents, respectively (Groups 4 and 5)--nearly the effect of nonattendance. Moreover, respondents who said later in the interview that they opposed cuts in the relevant program expressed an even greater disposition—equivalent to that for the no-show--to punish the incumbent for these votes. Judging from this evidence, then, people do not discount casual and uninformed judgments about policy positions. To the contrary, respondents were as willing to penalize a member of Congress for a single vote, on a complex issue described in a single phrase, as they were to penalize a member who often didn't vote at all.

The second set of questions was designed to determine whether such decisions to punish on a single issue even reflected people's policy preferences on that issue accurately. We measured support not only for cutting the Medicare and Medicaid programs generally but also for several specific approaches to doing so--options for reducing the programs' costs that had been actively considered around the time of the survey.¹⁰ In fact, many of the respondents who would have punished an incumbent for cutting these programs themselves supported or had “no feeling” about some of these measures. On Medicaid a 56-29 percent majority of such respondents favored transferring responsibility to the states. On Medicare 79 percent favored reducing

benefits for high-income recipients. In a word, a great deal of the electoral punishment was, from the standpoint of the respondents' own policy preferences, undeserved.

To be sure, we have presented evidence from a highly simplified survey experiment. Nonetheless, two well-documented cognitive biases—overconfidence and the fundamental attribution error—predict such an over-response to minimal information about candidates' policy positions (Fiske and Taylor 1991, pp. 67-72; Heider 1958; Ross 1977; Allwood and Montgomery 1987; Griffith and Tversky 1992; Mayseless and Kruglanski 1987). People overconfident in their judgments don't ponder alternative positions; and people who attribute an incumbent's vote entirely to his personal dispositions don't stop to consider that he might have voted in response to compelling circumstances. If people are quick to conclude, even with minimal evidence, that a vote was objectionable and that an incumbent cast it from bad motives, we should not wonder that negative, highly misleading political advertising is effective (Ansolabehere and Iyengar 1995).

Of course, the large effects of these survey items do not imply comparable impacts on voting in an actual election. Even assuming a far smaller actual impact, however, an excessive and erroneous response to a major campaign issue might swing the result in a competitive race. And even more likely, it might send powerful and misleading signals about issues to policymakers. Finally, the over-response to sketchy and tendentious issue appeals explains why there are "third rails" in politics, issues that responsible policymakers want to address but dare not touch.

Judging from all this research, then, various and sometimes severe distortions can occur in people's political judgments. They hold inaccurate and stereotyped factual beliefs, hold their beliefs overconfidently, resist correct information, prefer easy arguments, interpret elite statements according to racial or other biases, and rely heavily on scanty information about a candidate's policy positions.

A skeptic could still argue that such distortions are only of marginal importance in politics. Our findings almost certainly overstate their real impact. One reason is simply that people may behave differently in answering a survey than they do in other aspects of political life. (Of course answering surveys is itself part of political life.) A second reason is that each of our studies deals narrowly with certain elements of political judgment--factual beliefs, responses to issue positions, influences of different sorts of argument, and so on. In real-world politics, political judgments could have so many elements and be affected by so many stimuli that none of the cognitive errors people make would have much impact. Cognitive errors could cancel out, not only in collective opinion, but even at the individual level. In the next section, therefore, we introduce some evidence that more directly addresses real-world political consequences.

Collective Bias: Further Evidence

Two kinds of observation bear more directly on the role of cognitive distortion in real-world mass politics. One concerns changes in opinion that occur in so-called "deliberative polls;" the other the events of policymaking in certain areas of high salience. Neither sort of

evidence, it should be emphasized, is without significant ambiguity. Taken together, however, they provide some additional support for our line of argument.

The well-known deliberative polls that James Fishkin and Robert Luskin have conducted permit comparisons between a representative group of citizens and an obviously-pertinent better informed group--namely, the same individuals after they have been brought together for a weekend of intensive learning and deliberation (Fishkin 1997). Assuming that the deliberations improve information and reduce error, we can use the difference in opinion before and after deliberation as a crude indicator of the error.

Consider, in this light, some of the results. In a 1996 Austin, Texas gathering, support for a flat tax decreased from 44 percent before deliberation to 30 percent afterwards; support for a tax reduction for savings increased from 66 percent to 83 percent; support for maintaining current levels of foreign aid increased from 26 to 41 percent. There were even larger shifts in a series of regional deliberative polls on energy issues. In one, for example, support for increased reliance on renewable energy fell from 67 percent before the deliberation to 16 percent afterwards; support for investment in conservation increased from 11 percent to 46 percent. It turns out, then, that on a variety of issues people's initial preferences deviated substantially from their more informed and deliberative ones (Fishkin 1997, pp. 214-220).

This evidence has certain limitations. Most important from our standpoint, one might interpret the findings alternatively--namely, that the briefings or discussions were themselves biased, and that the changes in aggregate opinion merely reflect that bias. Yet that account of the changes does not appear very likely. Fishkin and his associates work diligently to ensure balance

in the briefings and deliberations. Participants themselves consider them fair.¹¹ We find it more plausible, therefore, to regard the findings as evidence of error, in relation to well-informed opinion, in pre-deliberative public opinion.

Although even more subject to interpretation, the ultimate real-world test of the importance of collective bias lies with its influence, if any, on public policymaking. If collective opinion is indeed often biased and if the bias does indeed affect policymaking—both assertions we have not proved--then a variety of important policies should exhibit the expected effects. In fact, although alternative accounts are readily available, there is no shortage of plausible cases. In the rest of the section, we will merely sketch a few such cases and comment briefly on the general issues of interpretation.

The most widely criticized feature of national policy in recent decades was the running of massive federal budget deficits from the early 1980s to the mid-1990s (Kettl 1992). Such deficits originated with President Reagan's use of unorthodox, highly optimistic fiscal projections in appealing to voters in the 1980 presidential campaign (Stein 1984; Campagna 1994). After the election, Reagan used popular support to push his supply-side tax cut through a skeptical Congress (Kernell 1993). Efforts to reduce the deficit in subsequent years often foundered on public resistance to tax increases and spending cuts and political rhetoric designed to exploit that resistance.

After the collapse of the Soviet Union, the United States responded only very modestly to Russian requests for large-scale economic assistance to help ensure a successful transition to liberal democracy (Snyder 1996; Mroz 1993). In view of the United States' huge stake in the

Russian reforms, such aid had strong support in the foreign-policy community. But a major economic-aid program for Russia ran up against the public's general aversion to foreign aid and its specific hostility toward former communists. American policymakers largely deferred to the public's reluctance. Indeed, former President Richard Nixon publicly chastised President Bush for his failure to lead on the issue.

A great deal of economic analysis suggests that federal environmental regulations have often been unduly severe--with costs of compliance vastly exceeding estimated benefits (Landy et al. 1990; Crandall 1997). Indeed, according to estimates by the nonpartisan Government Accounting Office, the costs of the ozone standards adopted by the Environmental Protection Agency in 1997 will exceed their benefits by approximately a factor of ten (Crandall 1997). The severity of such regulations appears to reflect the public's virtually automatic support for strong pollution controls and general unawareness of the resulting costs (Landy, et al. 1990, pp. 280-282). There are similar accounts of policymaking on energy pricing, nuclear power, welfare reform, criminal sentencing, and Social Security, among other areas.

As we have suggested, the interpretation of such cases is not straightforward. In particular, ordinary citizens may just disagree with the presumed experts, who in any case are never unanimous. The public may reject most experts' view of the world on some rational grounds. After the collapse of the Soviet Union, for example, people may have believed for cogent reasons that economic aid would not help the Russian democracy. Alternatively, the public may value different objectives than those that the more informed take for granted. People

may have wanted to deny aid to former communists more than they wanted stability in Russia. On such accounts, a more informed public would still reach the same conclusions.

In some of these cases, however, policymaking may indeed reflect bias and error in mass judgment. Often, these errors arise because one group of elites tries strategically to evoke them for purposes of gathering public support. Returning to our example, we find the following account at least plausible: Most people knew very little about the situation in Russia. They thus were highly susceptible to the influence of symbolism, emotional memories, and other sources of error. Some politicians exploited the resistance and helped intensify it; others played it safe and did not vigorously advocate aid. The result was a stingy aid program that put the nation's vital interest in a democratic Russia at risk.

Conclusion and Implications

We have cautioned against overly optimistic accounts of a politically competent, rational public. Citizens not only are minimally informed, as nearly all scholars agree; but they are also prone to bias and error in using the limited information they receive. As a result, they will sometimes send distorted signals to policymakers, which in turn can exert perverse influences on public policy.

We have not sought to specify the conditions under which cognitive error in mass opinion causes serious difficulties for democratic politics. In closing, we will offer a general speculation with broad implications for the condition of American political institutions.

The risk of distortion in mass opinion, we believe, will depend on where people focus their attention and on what kinds of judgment they attempt to make. In general, people should do better when they make inferences from the broader and longer-standing features of politics: political parties, social groups, ideologies, and established leaders. Heuristics based on these features should work, when people actually use them. People should have more difficulty when they make inferences from or directly assess narrower or shorter-term features: singular events, aspiring leaders, changing social or economic conditions, and, in particular, specific policies. Thus, for example, using party labels to evaluate candidates will work fairly well for most citizens in most races. But using campaign appeals about issues to evaluate candidates or parties will work much less well—and will often create perverse incentives for policymakers.

If this distinction is generally correct, there is cause for concern about developments in American politics. The citizenry has increasingly focused attention on the elements of politics where it is likely to make unreliable judgments. Citizens' attachments to and concern about political parties have declined in recent decades. With the rise of primary elections, the voters are now directly responsible for assessing the aspiring leaders in nomination contests. And with the rise of public opinion polls, decision-making by referendum, and issue-oriented political campaigns, they are increasingly called upon to choose specific policies. In short, American politics probably has become more susceptible to distortions in mass opinion in recent years.

Table 1. Support for hypothetical member of Congress, given various types of information

<u>Information</u>	<u>Likelihood of vote for the incumbent</u>	
	Very or fairly likely	Not very or not at all likely
47 years old	78%	12%
often absent and missed votes on important bills	30	64
voted against a major bill to cut the budget deficit	68	25
voted to cut medical care for the elderly		
all respondents	45	52
respondents opposing Medicare cuts (74%)	34	64
voted to cut medical care for the poor		
all respondents	45	50
respondents opposing Medicaid cuts (66%)	35	65

Endnotes

1.

. Even earlier, several contributors to Ferejohn and Kuklinski (1990) had stressed the utility of political heuristics. See Carmines and Kuklinski (1990), Ferejohn (1990), and McKelvey and Ordeshook (1990).

^{2.} For an imposing theoretical and empirical treatment of heuristics as such rational strategies, see Lupia and McCubbins (1998).

^{3.} At times, the political-heuristics advocates have seemed content to make a very limited claim--that heuristics help people make judgments with which they are satisfied. (Sniderman, Tetlock, and Brody 1991; Popkin 1991). We do not dispute this effect. Taken by itself, however, such a claim merely evades the issue of competence.

^{4.} In fact, Page and Shapiro themselves are concerned about certain forms of elite deception and manipulation; they fear that elites mislead the public to benefit powerful economic groups, to bolster aggressive foreign policies, and so on. Without disputing those concerns, we would suggest that the principal elite bias is probably to reinforce those biases that are already prevalent in mass opinion.

^{5.} We draw on a large number of works in this section. The most important include Barkow, Cosmides, and Tooby 1992; Bogdan 1997; Churchland 1995; Churchland and Sejnowski 1992; Damasio 1994; Hauser 1996; LeDoux 1996; Pinker 1997; and Plotkin 1998. Most of these books place a heavy emphasis on evolution. In following this lead, we recognize that evolutionary theory's currently high status could wane quickly. We also acknowledge the inherent

problems of testing evolutionary theory.

⁶. More specifically, most of the activity of the emotion systems does not produce conscious feelings. And the neural pathways that carry messages from the emotion systems to the cognitive systems are far more extensive than those running in the opposite direction.

⁷. It is possible to define low-information rationality, trivially, as the use of any information whatsoever, no matter how unreliably. ("I like his tie. I guess, then, I'd his policies.") The concept is significant only if implies the use of relatively efficient methods of judgment.

⁸. The items, selected with the help of experts in welfare policy, represent some of the main facts relevant to arguments for or against welfare programs; some of them tend to support welfare and some to oppose it.

⁹. To ensure that respondents did not merely make casual guesses and then feel compelled to express confidence in them, we examined the relationship between a directional (pro- versus anti-welfare) index of factual beliefs and two questions about welfare policy. The regression equations also included measures of two political orientations (political ideology and partisan identification) and three values (humanitarianism, egalitarianism, and anti-governmentalism), all known to be strongly related to welfare preferences. Even after controlling for these factors, factual beliefs influenced policy preferences in the expected direction. At a minimum, therefore, these beliefs were well-integrated into people's attitudes.

¹⁰. Respondents were divided randomly into two groups, for questions about either Medicare or Medicaid, and were given four options to support or oppose: reducing the health care services that beneficiaries received; requiring that services be obtained through prepaid plans like HMO's; requiring beneficiaries to pay more money out-of-pocket for health care; and (for Medicare) reducing benefits for high-income recipients or (for Medicaid) transferring authority to the states.

¹¹. In the January, 1996 poll, about 81 percent of the participants agreed that the briefing materials were "mostly balanced," and 94 percent felt that the group leaders had not sought to influence opinions (Fishkin 1997, pp. 224).

References

- Allwood, C. M., and H. Montgomery. 1987. "Response Selection Strategies and Realism of Confidence Judgments." *Organizational Behavior and Human Decision Processes* 39: 365-383.
- Althaus, S. L. 1996. *Who Speaks for the People? Political Knowledge, Representation, and the Use of Opinion Surveys in Democratic Politics*. Doctoral Dissertation, Northwestern University.
- Ansolabehere, S. and S. Iyengar. 1995. *Going Negative: How Attack Ads Shrink and Polarize the Electorate*. New York: Free Press.
- Barkow, J. H., L. Cosmides, and J. Tooby. 1992. *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. New York: Oxford University Press.
- Bogdan, R. J. 1997. *Interpreting Minds: The Evolution of a Practice*. Cambridge: MIT Press.
- Brady, H., and P. Sniderman. 1985. "Attitude Attribution: A Group Basis for Political Reasoning." *American Political Science Review* 79: 1061-1078.
- Cacioppo, J. T., and R. E. Petty. 1979. "Effects of Message Repetition and Position on Cognitive Response, Recall, and Persuasion." *Journal of Personality and Social Psychology* 37: 97-109.
- Cacioppo, J. T., and R. E. Petty. 1985. "Central and Peripheral Routes to Persuasion: The Role of Message Repetition." In A. Mitchell and L. Alwitt, eds., *Psychological Processes and Advertising Effects*. Hillsdale, N.J.: Erlbaum.
- Campagna, A. S. 1994. *The Economy in the Reagan Years: The Economic Consequences of the Reagan Administration*. Westport: Greenwood Press.
- Campbell, A., P. Converse, W. Miller, and D. Stokes. 1960. *The American Voter*. New York: John Wiley and Sons, Inc.
- Carmines, E. G., and J. H. Kuklinski. 1990. "Incentives, Opportunities, and the Logic of Public Opinion in American Political Representation." In J. A. Ferejohn and J. H. Kuklinski, eds., *Information and Democratic Processes*. Urbana: University of Illinois Press.
- Churchland, P. S., and T. J. Sejnowski. 1992. *The Computational Brain*. Cambridge: MIT Press.

- Churchland, P. M. 1995. *The Engine of Reason, the Seat of the Soul: A Philosophical Journey into the Brain*. Cambridge: MIT Press.
- Cobb, M. D., and J. H. Kuklinski. 1997. "Changing Minds: Political Arguments and Political Persuasion." *American Journal of Political Science* 41: 88-121.
- Converse, P. E. 1964. "The Nature of Belief Systems in Mass Publics." In D. Apter, ed., *Ideology and Discontent*. New York: Free Press.
- Converse, P. E. 1990. "Popular Representation and the Distribution of Information." In J. A. Ferejohn and J. H. Kuklinski, eds., *Information and Democratic Processes*. Urbana: University of Illinois Press.
- Cosmides, L. 1989. "The Logic of Social Exchange: Has Natural Selection Shaped How Humans Reason? Studies with the Wason Selection Task." *Cognition* 31: 187-276.
- Crandall, R. W. 1997. "The Costly Pursuit of the Impossible." *Brookings Review* 15:3, 41-47.
- Damasio, A. R. 1994. *Descartes' Error: Emotion, Reason, and the Human Brain*. New York: G. P. Putnam's Sons.
- Delli Carpini, M., and S. Keeter. 1996. *What Americans Know About Politics and Why It Matters*. New Haven: Yale University Press.
- Ferejohn, J. A. 1990. "Information and the Electoral Process." In J. A. Ferejohn and J. H. Kuklinski, eds., *Information and Democratic Processes*. Urbana: University of Illinois Press.
- Ferejohn, J. A., and J. H. Kuklinski, eds. 1990. *Information and Democratic Processes*. Urbana: University of Illinois Press.
- Fiorina, Morris P. 1981. *Retrospective Voting in American National Elections*. New Haven: Yale University.
- Fischhoff, B., P. Slovic, and S. Lichtenstein. 1977. "Knowing with Certainty: The Appropriateness of Extreme Confidence." *Journal of Experimental Psychology: Human Perception and Performance* 3: 552-564.
- Fishkin, J. S. 1997. *The Voice of the People: Public Opinion and Democracy*. New Haven: Yale University Press.

- Fiske, S. T., and S. E. Taylor. 1991. *Social Cognition*, 2nd Edition. New York: McGraw-Hill.
- Gilens, M. 1996. "Race Coding and White Opposition to Welfare." *American Political Science Review* 90: 593-604.
- Griffin, D., and A. Tversky. 1992. "The Weighing of Evidence and The Determinants of Confidence." *Cognitive Psychology* 24: 411-435.
- Hammond, J. S., R. L. Keeney, and H. Raiffa. 1998. "The Hidden Traps in Decision Making." *Harvard Business Review* September-October: 47-58
- Hauser, M. D. 1996. *The Evolution of Communication: An Introduction to Evolutionary Psychology*. Cambridge: Harvard University Press.
- Heider, F. 1958. *The Psychology of Interpersonal Relations*. New York: Wiley.
- Hibbs, D. 1987. *The American Political Economy: Macroeconomics and Electoral Politics*. Cambridge: Harvard University Press.
- Judd, C. M., and J. W. Downing. 1995. "Stereotypic Accuracy in Judgments of the Political Positions of Groups and Individuals." In M. Lodge and K. McGraw, eds., *Political Judgment: Structure and Process*. Ann Arbor: University of Michigan Press.
- Kahneman, D., P. Slovic, and A. Tversky, eds. 1982. *Judgment under Uncertainty: Heuristics and Biases*. New York: Cambridge University Press.
- Kahneman, D., and A. Tversky. 1984. "Choices, Values, and Frames." *American Psychologist* 39: 341-350.
- Kernell, Samuel. 1993. *Going Public: New Strategies of Presidential Leadership*. Washington: CQ Press.
- Kettl, D. 1992. *Deficit Politics: Public Budgeting in its Institutional and Historical Context*. New York: Macmillan.
- Key, V.O. Jr. 1966. *The Responsible Electorate: Rationality in Presidential Voting, 1936-1960*. Cambridge: Harvard University Press.
- Kinder, D. R. 1983. "Diversity and Complexity in American Public Opinion." In A. Finifter, ed., *Political Science: The State of the Discipline*. Washington, DC: American Political Science Association.

- Kuklinski, J. H., and N. L. Hurley. 1994. "On Hearing and Interpreting Political Messages: A Cautionary Tale of Citizen Cue-Taking." *Journal of Politics* 56: 729-51.
- Kuklinski, J. H., and N. L. Hurley. 1996. "It's a Matter of Interpretation." In D. M. Mutz, P. M. Sniderman, and R. Brody, eds., *Political Persuasion and Attitude Change*. Ann Arbor: University of Michigan Press.
- Kuklinski, J. H., P. J. Quirk, D. Schwieder, and R. Rich. 1997. "Misinformation and the Currency of Citizenship." Paper presented at the Annual Meeting of the American Political Science Association, San Francisco.
- Landy, M., M. Roberts and S. Thomas. 1990. *The Environmental Protection Agency: Asking the Wrong Questions*. New York: Oxford University Press.
- Lascher, E. L., and M. R. Powers. 1997. "Expert Opinion and Automobile Insurance Reform: An Empirical Assessment." Manuscript.
- Lau, R. R., and D. P. Redlawsk. 1997. "Voting Correctly." *American Political Science Review* 91: 585-598.
- LeDoux, J. 1996. *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*. New York: Simon and Schuster.
- Lupia, A. 1994. "Shortcuts versus Encyclopedias: Information and Voting Behavior in California Insurance Reform Elections." *American Political Science Review* 88: 63-76.
- Lupia, A., and M. D. McCubbins. 1998. *The Democratic Dilemma: Can Citizens Learn What They Need to Know?* Cambridge: Cambridge University Press.
- Mayseless, O., and A. Kruglanski. 1987. "What Makes You So Sure? Effects of Epistemic Motivations on Judgmental Confidence." *Organizational Behavior and Human Decision Processes* 39: 162-183.
- McGuire, W. J. 1969. "Nature of Attitudes and Attitude Change." In G. Lindzey and E. Aronson, eds., *The Handbook of Social Psychology* 2nd ed. (Volume 3, p.233-346). Reading, M.A.: Addison-Wesley.
- McGuire, W. J. 1985. "Nature of Attitudes and Attitude Change." In G. Lindzey and E. Aronson, eds., *The Handbook of Social Psychology* 3rd ed. (Volume 2, p.136-314). New York: Random House.

- McKelvey, R.D., and P. Ordeshook. 1990. "Information and Elections: Retrospective Voting and Rational Expectations." In J. A. Ferejohn and J. H. Kuklinski, eds., *Information and Democratic Processes*. Urbana: University of Illinois Press.
- Mondak, J. 1993. "Source Cues and Policy Approval: The Cognitive Dynamics of Public Support for the Reagan Agenda." *American Journal of Political Science* 37: 186-212.
- Mondak, J. 1994. "Cognitive Heuristics, Heuristic Processing, and Efficiency in Political Decision-Making." In M. Delli Carpini, L. Huddy, and R. Y. Shapiro, eds., *Research in Micropolitics*, Vol. 4. Greenwich, C.T.: JAI Press.
- Mroz, J. E. 1993. "Russia and Eastern Europe: Will the West Let Them Fail?" *Foreign Affairs* 72: 44-57.
- Nisbett, R.E., and L. Ross. 1980. *Human Inference: Strategies and Shortcomings of Social Judgment*. Englewood Cliffs, N.J.: Prentice-Hall
- Nordhaus, W. 1975. "The Political Business Cycle." *Review of Economic Studies* 42: 169-190.
- Page, B. I., and R. Y. Shapiro. 1992. *The Rational Public: Fifty Years of Trends in Americans' Policy Preferences*. Chicago: University of Chicago Press.
- Piattelli-Palamarini, M. 1994. *Inevitable Illusions: How Mistakes of Reason Rule our Minds*. New York: John Wiley.
- Pinker, S. 1997. *How the Mind Works*. New York: W.W. Norton & Company.
- Plotkin, H. C. 1998. *Evolution in Mind: An Introduction to Evolutionary Psychology*. Cambridge: Harvard University Press.
- Popkin, S. L. 1991. *The Reasoning Voter: Communication and Persuasion in Presidential Campaigns*. Chicago: University of Chicago Press.
- Price, V., and P. Neijens. 1997. "Opinion Quality in Public Opinion Research." *International Journal of Public Opinion Research* 9: 336-360.
- Ross, L. 1977. "The Intuitive Psychologist and His Shortcomings: Distortions in the Attribution Process." In L. Berkowitz, ed., *Advances in Experimental Social Psychology* (Volume 10, p.174-221). New York: Academic Press.

- Schwarz, N., and L. G. Clore. 1988. "How Do I Feel About It? The Informative Function of Affective States." In K. Fiedler and J. Forgas, eds., *Affect, Cognition, and Social Behavior*. Toronto, Canada: Hogrefe.
- Sniderman, P. M., R. A. Brody, and P. E. Tetlock. 1991. *Reasoning and Choice: Explorations in Political Psychology*. New York: Cambridge University Press.
- Sniderman, P. M. 1993. "The New Look in Public Opinion Research." In Ada Finifter, ed., *Political Science: The State of the Discipline II*. Washington, DC: American Political Science Association.
- Sniderman, P. M. 1999. "Taking Sides: A Fixed Choice Theory of Political Reasoning." In A. Lupia, M. McCubbins, and S. Popkin, eds., *Elements of Reason: Understanding and Expanding the Limits of Political Rationality*. New York: Cambridge University Press.
- Snyder, J. 1996. "Military Force and Regional Order." In E.A. Kolodziej and R. Kanet, eds., *Coping With Conflict After the Cold War*. Baltimore: Johns Hopkins University Press.
- Stein, Herbert. 1984. *Presidential Economics: The Making of Economic Policy from Roosevelt to Reagan and Beyond*. New York: Simon and Schuster.
- Stimson, J. A. 1991. *Public Opinion in America: Moods, Cycles, and Swings*. Boulder: Westview.
- Stimson, J. A., M. B. MacKuen, and R. S. Erikson. 1995. "Dynamic Representation." *American Political Science Review* 89: 543-65.
- Tufte, E. 1978. *Political Control of the Economy*. Princeton: Princeton University Press.
- Tversky, A. and D. Kahneman. 1981. "The Framing of Decisions and the Psychology of Choice." *Science* 211: 453-458.
- Wason, P. 1966. "Reasoning." In B. M. Foss, ed., *New Horizons in Psychology*. London: Penguin.
- Wittman, D. 1995. *The Myth of Democratic Failure: Why Political Institutions Are Efficient*. Chicago: University of Chicago Press.
- Woolley, J. T. 1998. "Exorcising Inflation-Mindedness: The Transformation of Economic Management in the 1970s." *Journal of Policy History* 10: 130-152.