



Evaluating Political Science Research: Information for Buyers and Sellers

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Evaluating Political Science Research: Information for Buyers and Sellers*

Science is important. It discovers fundamental properties of complex systems and it provides us with new tools for human benefit. As David A. Hamburg, president of the Carnegie Corporation, explains:

Science is not a separate entity, remote from the lives of people. Indeed, science provides the basis for most of the requirements of modern living: the world has been transformed by science and technology in this century and this transformation is continuing, even accelerating, as the century comes to its close. (1993, 4)

Science is also expensive. Many investigations require costly instruments or large quantities of labor. This aspect of science sends practitioners in search of funding. Early in their careers, scientists learn that research funds are scarce. They learn that scientific funding agencies receive more requests than they can grant.

Indeed, funding agencies must make tough choices about what to pay for. Implicit in their choices are statements about the kinds of research that the agencies find valuable. When deciding whether to fund economists or anthropologists, biologists or mathematicians, funding agencies send signals about the relative value of competing scientific agendas.

Should such agencies fund political science research? This question is particularly relevant for the National Science Foundation. People in and around NSF offer varying opinions about the value of political science research. A recent memo by APSA President Matthew Holden (1999) characterizes the situation.

Those of us who think political science is something important . . . may need a certain intellectual honesty and emotional balance in thinking about social science issues in relation to NSF. The rest of the world does not necessarily give our activity the

credence that we give it. . . . Many in [the natural sciences] think politics is an activity that is inherently not worthy of study. Others may view it as interesting, but not capable of *scientific* study. Still others may perceive that, in principle, politics could be scientifically studied, but that it is not so studied by the people who designate themselves political scientists.

When answering questions about the public value of basic research in political science, it is important to acknowledge that political science research, like other kinds of scientific research, is a product. This product clarifies the properties and mechanics of the complex political phenomena that affect many aspects of our lives. It is a product that entities such as universities, academic publishers, and NSF buy, it is a product that the people who benefit from political science discoveries consume, and it is the product that political science researchers sell.

As is true for all products, interactions between producers and consumers determine the value of political science research. Producers make the product. They determine its design and the precision of its workmanship. Producers do not, however, dictate the product's value. To have value, the product must be something that consumers want or need.

Consumer beliefs about the product are critical in determining its value. If consumers are uncertain about what a product does, then they may also be uncertain about the benefits of purchasing the product. Such uncertainty about benefits, in turn, may depress the price that buyers are willing to pay.

In the end, workmanship and design interact with consumer needs and beliefs to determine a product's value. And, while people may disagree about the extent to which market forces influence research activities, it is undeniable that such forces are present to some extent.

So, is political science research valuable to society? Opinions vary.

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Beneficiaries value the product highly and call for increased government funding, while people for whom the benefits are less direct advocate using tax dollars for other purposes. Such disagreements are difficult to arbitrate. It is possible, however, to bring greater clarity to the debate.

My objective here is to reduce the uncertainty that buyers and sellers of political science research have about one another. I offer buyers information about the product that is often difficult to obtain, including information that clarifies political science's unique intellectual challenges. I offer sellers information about the buyer's needs and perceptions.

I present this information because I know that when buyers and sellers learn about each other, both can reap benefits. Buyers face less risk in the act of purchasing and sellers have clearer incentives regarding effective design and quality workmanship. Buyers become more certain about the benefits of purchasing the product and may increase the price they are willing to pay. Sellers approach buyers with a clearer understanding of what their clients need.

This appraisal of the public value of political science research begins a *PS* symposium on the topic. Following this article, six of the discipline's leading figures describe ways in which political science research has brought benefits to humanity and provided knowledge critical to other fields of study. Our hope is that the symposium will broaden the coalition of scientists and policymakers who find politics worthy of study, capable of scientific study, and studied as such by the people who designate themselves political scientists.

What the Buyer Should Know

In this section, I discuss two aspects of political science--subject matter and research methods. I argue that the subject matter of political science poses unique difficulties for those who study it and that these difficulties are sometimes interpreted incorrectly as a symptom of substandard research methods. I then briefly compare research methods in political science to those of other sciences. I conclude that is a normal science.

Subject Matter: The Trouble with Politics

Shortly before his death, former Yale president and baseball commissioner A. Bartlett Giamatti penned "The Green Fields of the Mind." In it, he gave a memorable description of our collective experience with his favorite pastime.

It breaks your heart. It is designed to break your heart. The game begins in the spring, when everything else begins again, and it blossoms in the summer, filling the afternoons and evenings, and then as soon as the chill rains come, it stops and leaves you to face the fall alone. (1999, 7)

He might have added that before the games begin, fans hold the hope that their favorite team will prevail. As the games unfold, however, the cruel reality of the contest kicks in--only one team can stand victorious at season's end. Most fans are left with broken hearts and visions of victories that might have been.

If baseball is designed to break your heart, politics is designed to break your heart while making you really angry at the process. For, at the beginning of a campaign or policy debate, advocates can think of why their side should prevail. But the cruel reality of politics is that it produces losers as well as winners. Many who attach themselves to certain candidates or policies are destined for heartbreak. And while losses in baseball are made palatable by the fact that everyone plays under the same set of rules, such is not the case in politics. Indeed, in politics the point of the enterprise is usually to question or change the rules (e.g., debates about the tax code, policy proposals contained in a campaign platform). So when citizens watch political battles, what they see breeds no love for the process.

Note, however, that much of what makes politics easy to hate also makes it easy to misunderstand. In particular, many people believe that politics is something that we can live without or something whose less attractive attributes are easy to eliminate. However, the same forces that align the universe in ways that generate the physical regularities we observe also align earthly forces to ensure that politics are necessary and will always be scorned. To see why this is true, consider the following facts about politics.

1. *Politics is collective decision making in circumstances where individual objectives cannot be achieved simultaneously. Therefore, politics presupposes disagreement.* Everyone cannot have everything they want. This truth guarantees that people will sometimes disagree. Politics is the means that groups of people use to confront their disagreements. Some observers claim that politics is illegitimate because it causes disagreement. But this claim puts the causal arrow in the wrong direction; for if we are in a situation where disagreement is impossible, then the situation is not political.
2. *There are some issues for which politics must produce "illegitimate" outcomes.* For many issues, compromise is impossible. An abortion law, for example, either allows abortion in a particular circumstance or it does not, it cannot allow a mixture of both. On such issues, politics is guaranteed to generate an outcome that some regard as illegitimate.
3. *There is no alternative.* Politics confronts us with what we can't have. Failing to recognize this fact, some observers think that we would be better off without politics. But nature does not allow it. The outcomes of politics--collective actions with

collective and individual ramifications--can be changed, but they cannot be eliminated.

4. *Politics also presupposes collective action.* There are some goals whose achievement requires collective action. Elections, military operations, and the enactment and enforcement of laws and property rights (without which economic markets cannot operate effectively) all require people to work together. Even dictators need people to work with them. If there is no need for collective action, then there is no need for politics. Otherwise, some groups must come to an agreement about what to do.
5. *Even if groups agree on ends, they may disagree on means.* While collective action can solve many problems, it entails problems of its own (Olson 1965; Ostrom 1990). For example, there are usually multiple methods for achieving a common goal over which individuals may disagree. This is particularly likely if available means of achieving a group's goal vary in the costs and benefits that they impose on particular individuals. A case in point is a nation that agrees on the need for a strong military but has internal disagreements about who should serve and about where to locate military installations. Many people presume that agreement on ends implies agreement on means. When they see a disagreement on means, they blame the weak character of politicians (e.g., the many critiques of government for not implementing a particular expert's favored remedy to the global warming problem). Such critiques, however, treat disagreements on means as if they are a quirk of individual decisionmakers rather than what they truly are--a universal property of collective choice (see, e.g., Arrow 1963).
6. *People who lose political battles--over goals or means--argue that the outcome should have been different.* Politics is a collective and ongoing enterprise. That it is collective gives people who lose an audience for their complaints. That politics is ongoing gives some current losers a hope of prevailing in the future. These two attributes of politics provide people with an incentive to issue public complaints about politics and ensure that such complaints will be frequent.

Indeed, I have found that what some observers dislike about political science is not the science but the politics. For, when outsiders look into the subject matter of other sciences, their jaws drop in awe of nature's beauty and power. They are justifiably impressed by those who work hard to uncover nature's amazing secrets. By contrast, when outsiders look into the subject matter of political science they see ideological battles, demagoguery, and scandal. Some are justifiably repulsed by those who work hard to uncover important properties and mechanics of political phenomena. However, we know that disagreement causes politics, politics can generate "illegitimate" outcomes, collective action is difficult, and political losers complain. While these forces of nature attract scorn and derision to the subject of politics, they are also inescapable when groups of people attempt to live together.

The promise of the natural sciences is that we can improve our existence by using them to uncover the properties and mechanics of forces that are fundamental to our lives. The promise of political science is no different.

In addition to ugly subject matter, political science has another difficult attribute--a somewhat adversarial rela-

tionship with its objects of study. To make this point, I ask you to consider how different physics or astronomy would be if they had the following characteristics.

1. *The objects of study fight back.* In political science, the objects of study can read what scientists have said about them and adjust. If they think that someone wants to examine them, they may attempt to hide or destroy information about themselves. "Predictions of the return of Halley's comet," by contrast, "do not influence its orbit" (Merton 1968, 477).
2. *The objects of study do not welcome analysis.* Political scientists seek to clarify the mechanics of objects such as constitutions, policies, and campaigns. People operate these mechanisms and many of them do want their actions analyzed. Indeed, I have yet to meet the person who enjoys hearing that aspects of their voting or legislative decisions can be reduced to a mathematical equation--even if their behavior does indeed exhibit general properties than can be represented mathematically. Quarks and leptons, I presume, don't take attempts to characterize them so personally.
3. *The objects of study are more passionate than the scientists.* Most people who work in government or who are active participants in campaigns or policy debates have a deep concern for some aspect of social life. By contrast, most political scientists are not political activists. Indeed, people who have spent a great deal of their lives working for "the cause" (whatever it may be) tend to have a difficult time accepting the idea that their political opponents are as worthy of study as they are. The forces implicated in the debate over the cosmological constant, by contrast, never fear that physicists are secretly working for "the other side."
4. *Everyone believes that they already know the answers to many of your questions.* Unlike physics, many people believe that they know precisely how politics works. They believe that it is easy to define "right" and "wrong" and then to convert "right" into policy. Of course, if you draw a random sample from most large populations, you quickly find very different and conflicting conceptions of "right." Nevertheless, many people prefer their view of politics to objective analyses of politics. Moreover, ideologues and nonideologues alike want to know why political scientists cannot come up with a cure for disagreement or heated rhetoric. They think that if we just get rid of politicians, politics will improve. But people tend to dislike politicians because politicians embody collective decisions that they dislike. To the extent that this is true, we cannot get rid of politicians--we can just replace old ones with new ones. In sum, many seemingly simple solutions to political problems are impossible to achieve.

That many people believe they understand politics may seem to make a *science* of politics unnecessary. After all, why study something that people think they already know? I contend, however, that this attribute of politics makes the development of political science all the more important. We benefit from having transparent, impartial, and replicable means for evaluating the validity of various political myths. Political science provides such a means.

The trouble with politics is that its subject matter is ugly and that talking about it causes all kinds of personal discomfort. Do these attributes imply that the *science* of politics is ugly as well? If well designed and conducted, political science research can clarify the basic properties

and fundamental mechanics of a problem that is ubiquitous in large human societies: the need to make collective decisions that have individual and collective ramifications. Such efforts can yield substantial human benefits. Therefore, the science need not be ugly.

Research Methods: The Qualities of the Product

Conceding that politics is a necessary, but unattractive, topic of inquiry may do little to allay doubts about whether politics is scientifically studied by the people who designate themselves political scientists. In this brief section, I want to address some of these doubts.

Are political scientists scientists? A problem with defining anyone as a scientist is disagreement about definitions. If, however, we follow Kuhn (1962, 162), who defines a science "as any field in which progress is marked" then political science is indeed a science. As the following articles will attest, discoveries have indeed been many--ranging from the idea of a "democratic peace" that now guides many aspects of U.S. foreign policy (Siverson 2000) to the corrections to widely held myths about the stability of governing coalitions (Laver 2000). Ordeshook described other examples, such as

the circumstances under which . . . legislative vote trading is . . . profitable . . . how information and beliefs can influence strategic decisions, . . . how reputations are formed, how constitutional provisions can be self-enforcing, and the circumstances under which deception is and is not a viable strategy. (1995, 178)

Indeed, the state of scientific knowledge about politics has evolved vastly and quickly throughout the latter part of this century. So, perhaps the matter of science in political science is settled. But it could also be the case that political scientists are inferior scientists when compared to researchers in other disciplines. This conclusion could be true even if everything I have argued to this point is true. Are political scientists inferior, or do they conduct themselves in the same manner as other scientists? I contend that many political scientists are similar to other scientists in their conduct.

The main similarity is that successful political science researchers agree with scientists in other fields that their goal is inference and that their procedures must be replicable and public (see, e.g., King, Keohane, and Verba 1994, 7-8). Moreover, political scientists follow many procedures common in the natural sciences, such as forming testable hypotheses, performing experiments, drawing statistical inferences, mathematical modeling, and conducting detailed empirical analyses of basic phenomena in order to uncover important properties and mechanics of political systems.

An important difference between political science and other sciences is that the former seems especially

vulnerable to ideological infiltration. Some people believe that political science is nothing more than advocacy masquerading as science. Part of this view undoubtedly emanates from the universities of current and former totalitarian states, in which social science departments are often little more than propaganda machines for ruling powers. In open academic systems, however, social scientists face different incentives. As King, Keohane, and Verba stated, "No one cares what we think--the scholarly community only cares about what we can demonstrate" (1994, 15).

Of course, in most fields of science, a scholar's view

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about how the world "should be" affects his or her choice of research question and the answers that they hope to find. The number of

scholars working on topics such as global warming and social inequality are cases in point--how many of them hope to *increase* the rate of warming or the extent of inequality? That people make such choices, however, does not threaten the credibility of science. The threat begins when a researcher's ideology substitutes for available data or normal scientific means of inference. The threat is realized if members of the discipline lack the ability to review the relationship between the research methods and the submitted findings. A discipline that does not require its practitioners to submit their findings to rigorous internal and external reviews is susceptible to becoming an ideological mouthpiece for its practitioners.

Fortunately, political science--particularly its most widely-read journals--has a rigorous and well-documented reviewing apparatus (e.g., Finifter 1998; *AJPS* 1999). These journals, as well as the better-known academic presses in which political scientists publish books, solicit opinions from a wide range of referees including scientists from other disciplines and real-world practitioners. As a result, the findings that come out of political science's best-known departments and go into its most widely-read journals are the products of normal science and have changed what we know about politics.

What the Buyer Needs

The National Science Foundation values political science research that helps it achieve its own objectives. An advantage of being a political scientist is that an extended description of NSF's objectives is unnecessary. NSF is a government agency, and if any scholars can understand its incentives, it is political scientists. Therefore, I offer a very brief description.

Congress, and not any academic institution, ultimately controls the purse strings of NSF. As then-APSA President Matthew Holden pointed out in a May 11, 1999, memo: "Congress created it. Congress endowed it with certain powers. And Congress could constrain or abolish it." So when NSF is the buyer, Congress is the power behind the purse.

What do Congress and NSF want from political science? I offer two pieces of evidence as the basis of an answer. The first piece of evidence comes from Miriam Golden, who summarized her conversations with NSF administrators this way:

Congress will continue to fund the social sciences only if investigators can demonstrate that the knowledge they produce is akin to the knowledge produced by the medical sciences: i.e., that it improves societal welfare. Congressional representatives want results for their money. They are tired of the arcane ideological battles that characterize fields that do not have clear hierarchies of knowledge. Such debates simply discredit the disciplines involved. Congressional representatives want to know what they are paying for, and knowledge for its own sake is not, in their book, worth paying for.

Congress and NSF want a tangible product that has relevance outside of the discipline. They want research, both pure and applied, whose implications allow for more efficient and effective performance of government institutions. A recent example of such research is Gary W. Cox's prize-winning 1997 study of how strategic behavior affects the performance of the world's electoral systems. His work provides clear descriptions of how institutions and political culture affect the choices available to voters and the mechanics of political party survival.

NSF also wants research whose insights spillover to the conduct of other scientific disciplines. In the past, the works of political scientists such as Herbert A. Simon (e.g., 1979, 1982), Robert Axelrod (1984) and the authors of *The American Voter* (Campbell et al. 1964) have had such an effect. More recent work with such promise includes Gary King's solution to the ecological inference problem. The research agendas of King and other political scientists in this area are critical to the study of politics, are relevant to a wide range of scientific inquiries, and have improved the statistical foundations of legal arguments about redistricting.

Congress, however, is suspicious of political science. I suspect that part of the suspicion is due to "The Trouble with Politics" outlined above--the subject matter is ugly and some of the inquiries cause discomfort. Moreover, Congress does not want NSF to pay for projects whose main goals are ideological or relevant only to tiny subsets of a discipline. It wants NSF to fund efforts that clarify critical questions. Consider, as evidence, excerpts from a debate from the floor of the House of Representatives on a 1998 amendment to freeze the size of the NSF budget (*Congressional Record* 1998, H 6536-6538).

Mr. Sanford: I mean, the same folks that I talked to back home, they say, if they had to set no priorities, when they walked into Wal-Mart, they would essentially walk out of Wal-Mart with everything that is in the store. But they cannot do that. They have to set a budget. They have to set numbers. They come up with what they can spend overall. So this amendment is simply a way of signaling to the National Science Foundation please look at those things. Because the gentleman from California (Mr. Lewis) himself last year offered an amendment that said there was a grant that, as I understand it, would have studied, for about \$174,000, why some people choose to run for office or choose not to run for office. Again, interesting but not vital. . . . I could come up with others, but I think the main point is quite simple. That is that the National Science Foundation in funding research needs to look at two things: One, a clear criteria that answers the question for the taxpayer, is this interesting or is it vital? And that it answers the question of, is it worth the cost? Because you can simply turn on the Internet and see that there is all kinds of information out there. The question before us, though, is not, is there information, but is it vital information?

Mr. Ehlers. . . . Mr. Chairman, I would like to respond to the amendment and the comments just made. I would remind my colleague, the gentleman from South Carolina, that when his people come out of the store, my colleague might ask them what they think of the laser scanner that was used to get them out of the store more quickly and more efficiently, because development of the laser was financed in part by the National Science Foundation.

My colleague might ask, too, whether they enjoy the rapid delivery of their FedEx packages. Indeed, part of that research has been done by the National Science Foundation. My colleague suggested that FedEx should pay for it themselves, but, in fact, Federal Express developed into what it is today, because of the techniques resulting from such research, and the taxes that FedEx pays today far more than cover the cost of any research that was done which may have helped to develop the system.

My point is that the United States has a vibrant and booming economy today, especially compared to that of other nations, because we also have a booming and vital research enterprise in this Nation. There is a direct correlation between economic growth and the amount of money spent on research, and all of us should recognize that

Mr. Foley. What I am concerned about is [NSF's] refusal to heed Congress' call to use better judgment in awarding grants even though we are proposing to increase its budget this year by \$200 million.

One of my constituents, Bill Donnelly, recently contacted my office to complain that the National Science Foundation awarded a \$107,000 grant to study dirty jokes. Although skeptical, I contacted the National Science Foundation for an explanation. To my dismay, not only did the National Science Foundation spend more than \$100,000 to fund such a study but it attempted to justify the grant by saying that there is no accurate study as to why people laugh at certain offensive jokes. . . .

[Others speak.]

Mr. Foley: Obviously, the National Science Foundation does not get it. The U.S. taxpayer should not be funding research that has dubious scientific merit, at best. This is why we should support the Sanford amendment. We need to send a strong message not only to the National Science Foundation, folks, this is not just about one agency. This is about every agency that determines how to use its federal dollars.

[Deliberations continue. A vote is taken. The amendment is defeated.]

Debates such as this remind us that what keeps NSF afloat and growing is the congressional perception that scientific discovery pays for itself and makes the country better off. Congresspersons realize that science provides the basis for most of the requirements of modern living, from household conveniences to national security. To the extent that researchers can provide scientific products that benefit congressional constituents, NSF's relations with Congress will be more profitable.

It is important, however, to realize the danger of undervaluing political science research that comes from confounding the research's value with the fact that governments in a free society have somewhat adversarial relations with those who study what they do. Indeed, one of the most important things separating authoritarian regimes from nonauthoritarian ones is that the latter allow a free press and a free social science. While journalists and scientists in such societies sometimes delve into issues that make legislators squirm, regimes that do not support such entities learn far less about how to operate complex political machinery to beneficial public ends. As difficulties in many other parts of the world reveal, restrictions that isolate government actions from public scrutiny in the short run lead to long-run ignorance about how to operate democracies and markets. Indeed, for many formerly authoritarian states, this ignorance continues to have severe economic and social consequences long after the restrictions have fallen. As long as governance is complex, societies benefit from a press that has the freedom to provide information about political actors and actions and a science that has resources sufficient to discover fundamental properties of politics.

Conclusion

From Bruce Alberts, president of the National Academy of Science, at his Presidential Address to the 136th annual meeting of the Academy (1999):

In the years ahead, policy-making institutions all over the world will face increasingly complicated issues involving questions of scientific validity and balance. The world badly needs an impartial mechanism, based only on science, to promote smarter decision making. . . . The world's academies and their counterpart institutions are the ideal institutions for providing independent, credible, timely, and multinational advice on a broad range of such issues.

Political science clarifies the basic properties and fundamental mechanics of complex phenomena that affect how all of us live. While its subject matter may be ugly, we cannot turn away from the scientific study of politics. For, when we look around the world, we can see that political choices matter. Countries that govern themselves in certain ways enjoy freedoms and opportunities--including the ability to conduct scientific research--that countries governed in other ways do not. We should know as much as we can about why this is.

Since almost everyone has strong opinions about politics, some question whether a "science" of politics is possible or worth developing. The answer to both questions is "yes." Living life as we want it to be requires us to construct complex political instruments, such as constitutions or public policies. Understanding such instruments is not trivial. Indeed, many political phenomena resemble an N-person chess game, where the number of moves available to all players far outnumber the moves available to Kasparov or Big Blue. Through my experience as a political scientist, however, I have come to learn that many of these instruments and phenomena have properties that science can uncover. I have come to learn that there are important questions whose answers we can clarify.

Are political scientists up to the task? That is for others to decide. Are political scientists scientists? The methods we use, Kuhn's standard (cited above), and this reflective comment of Kuhn's makes me believe that political scientists are as well positioned for progress as are any social scientists.

Can a definition tell a man whether he is a scientist or not? If so, why do not natural scientists or artists worry about the definition of the term? Inevitably, one suspects that the issue is more fundamental. Probably questions like the following are really being asked: Why does my field fail to move ahead in the way that, say, physics does? What changes in technique or methods or ideology would enable it to do so? These are not, however, questions that could respond to an agreement on definition. Furthermore, if precedent from the natural science serves, they will cease to be a source of concern not when a definition is found, but when the groups that now doubt their own status achieve consensus about their past and present accomplishments. It may, for example, be significant that economists argue less about whether their field is a science than do practitioners of some other fields of social science. Is that because economists know what science is? Or is it rather economics about which they agree? (1962, 160-61)

My hope is that this collection of articles broadens the coalition of citizens, journalists, policymakers, and scholars who recognize the important benefits of publicly-funded research in political science. I also hope that it helps graduate students in my discipline focus on the task at hand--answering vital questions about the properties and mechanics of political phenomena. To succeed, we must keep up with changes in the world and pay close attention to the types of scientific activities that are increasing in value. As E. O. Wilson recently argued:

Profession-bent students should be helped to understand that in the twenty-first century the world will not be run by those who possess mere information alone. Thanks to science and technology, access to factual knowledge of all kinds is rising exponentially while dropping in unit cost. It is destined to become global and democratic. Soon it will be available everywhere on television and computer screens. What then? The answer is clear: synthesis. We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people who are able to put together the right information at the right time, think critically about it, and make important choices wisely. (1998, 269)

I conclude with a brief statement about the importance of political science research to science itself. While it is obvious that discovering fundamental properties of political phenomena and offering clear and impartial explanations of complex political mechanisms provides new capabilities for human benefit, such knowledge also benefits science directly. Many of the most important ideas from the natural sciences, for example, can impact human life only if governments react in certain ways. As noted science historian Charles C. Gillispie pointed out

Science is anything but apolitical in its application, practice and very possibility. What else but politics decided the fate of the Superconducting Supercollider, which might have fortified the laws of physics? (1998, 283)

However, counterexamples to the belief that "good science implies better policy" persist. Consider, for

example, how the scientific consensus on the supposed dangers of Alar and silicone breast implants contrasted with policy decisions made on these issues. Similar forces prevent some advances in medical science from improving peoples' health. While it is easy to blame such outcomes on politicians who do not understand science, or scientists who do not understand politics, blame games do not address these problems. By contrast, a science that focuses on how political actors use information provides a better corrective. Political science is such a science. It can help other scientists improve the quality of life.

Without politics, life as we know it would be impossible. Research in political science improves how people live by clarifying the many implications of this natural law. As a result, political science merits serious scholarly consideration and continued public support.

Note

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References

- Alberts, Bruce. 1999. "Science and the World's Future." Presented at the annual meeting of the National Academy of Sciences, Washington, DC.
- American Journal of Political Science*. 1999. "AJPS Statistics" <<http://psweb.sbs.ohio-state.edu/ajps/ajpsstat.htm>>. Accessed November 17, 1999.
- Arrow, Kenneth J. 1963. *Social Choice and Individual Values*. 2nd ed. New York: Wiley.
- Axelrod, Robert. 1984. *The Evolution of Cooperation*. New York: Basic Books.
- Campbell, Angus, Philip E. Converse, Warren E. Miller, and Donald E. Stokes. 1964. *The American Voter*. New York: John Wiley and Sons.
- Cox, Gary W. 1997. *Making Votes Count: Strategic Coordination in the World's Electoral Systems*. New York: Cambridge University Press.
- Finifter, Ada W. 1998. "The 1997-98 Sail on the Flagship *American Political Science Review*." *PS: Political Science and Politics* 31(December): 897-905.
- Giamatti, A. Bartlett. 1999. "The Green Fields of the Mind." In *A Great and Glorious Game: Baseball Writings of A. Bartlett Giamatti*, ed. Kenneth S. Robson. Chapel Hill, NC: Algonquin Books.
- Gillispie, Charles C. 1998. "E.O. Wilson's Consilience: A Noble, Unifying Vision, Grandly Expressed." *American Scientist* 86(May/June): 280-83.
- Hamburg, David A.. 1993. "Foreword." *Science, Technology, and Government for a Changing World: The Concluding Report of the Carnegie Commission on Science, Technology, and Government*. New York: The Carnegie Commission on Science, Technology, and Government.
- Holden, Matthew Jr. 1999. Memo to the APSA Committee on Political Science and the National Science Foundation. May 11.
- King, Gary. 1997. *A Solution to the Ecological Inference Problem*. Princeton: Princeton University Press.
- , Robert D. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press.
- Kuhn, Thomas S. 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- Laver, Michael. 2000. "Government Formation and Public Policy." *PS: Political Science and Politics* 33(March).
- Merton, Robert K. 1968. *Social Theory and Social Structure*. New York: Free Press.
- Olson, Mancur. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Ordeshook, Peter C. 1995. "Engineering or Science: What Is the Study of Politics?" *Critical Review* 9(1-2): 175-88.
- Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Simon, Herbert A. 1979. *Models of Thought*. New Haven: Yale University Press.
- , 1982. *Models of Bounded Rationality*. Cambridge, MA: MIT Press.
- Siverson, Randolph. 2000. "A Glass Half-Full? No, but Perhaps a Glass Filling: The Contributions of International Politics Research to Policy." *PS: Political Science and Politics* 33(March).
- Wilson, Edward O. 1998. *Consilience: The Unity of Knowledge*. New York: Knopf.