Feminism and Federally Funded Social Science: Notes from Inside

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ABSTRACT: In order for feminist social science research to influence the transformation of society toward more equitable gender arrangements, it must both be undertaken and be applied in the policy arena. For these to happen, feminist social scientists must be active players in the research policy and funding enterprise, particularly at the federal level. The discussion of how feminist social science has had an impact, and can have an even greater one, both on and through federally funded research is framed in two larger contexts: the broader federal science and technology (S&T) enterprise and the impact of feminism on society generally. A selective review of developments in both the representation of women in S&T and attention to issues of gender in the content of scientific research demonstrates that, although much progress has been made, much remains to be done. Some strategies for furthering the feminist project through the federal research enterprise are offered.

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GIVEN its emergence in the context of the late-twentieth-century women's movement, contemporary feminist scholarship has always been connected to feminist action. The goal of much feminist social science is not just to advance knowledge but also to apply that knowledge to progressive social change. By highlighting the ways in which sex and gender operate as major organizing principles—in particular, how they confer unequal power and status to males and females and the consequences thereof—feminist scholars aim to inform the transformation of society toward more equitable arrangements.

This transformation can occur only if (1) feminist social science research is undertaken, which generally requires funding support, and (2) that research is applied in the policy arena. For both of these to happen, feminist social scientists must be active players in the research policy and funding enterprise, particularly at the federal level. This is not an easy task for a number of reasons, including the historical marginalization of feminist scholarship (in part because of its political linkages) and the relative dearth of influential feminist social scientists in the highest echelons of science policymaking and the scientific establishment. Even still, there has been notable progress in this regard.

In this article, I identify some of the ways in which feminist social science has had an impact—and can have an even greater one—both on and through federally funded research, by placing the discussion in two larger contexts. The first is that of the broader federal science and technology (S&T) enterprise and the place of the social sciences within it, as many of the issues of feminist scholarship are actually issues of the status of the social sciences generally. The second context is that of feminism generally, as much of the success or failure of feminist social science reflects the impact of the feminist movement on social and political life in America. For this discussion, I refer to two dimensions of the feminist project: claims for gender equity (for example, through more proportional representation of women in S&T) and greater attention to gender and "women's" issues in the content of scientific research. This is by no means a comprehensive review of either of these dimensions, rather a reflection based on experience inside the federal science policy apparatus.

I begin with an anecdote. A few years ago, during the annual meeting of the American Sociological Association, I served as moderator on a panel entitled something like "The Social Dimensions of AIDS." In the course of the discussion following paper presentations, someone made the point that the kind of HIV/AIDS research she and other sociologists conducted typically does not receive funding from federal agencies, such as the National Institutes of Health (NIH). This person's research focused on theory development, specifically around gay and lesbian sexuality, gender identity, and social status, or what has become known as "queer theory." The link with HIV/AIDS is in understanding how the gay and lesbian community

became both vulnerable to HIV/AIDS and mobilized around combating it. When she asked me how she could get such research funded by NIH, I suggested she "lose the 'queer.'" This was not meant to be glib or rude (although it did produce much chuckling). Rather, it was said to make the point that in a highly politicized funding environment—as the federal agencies often find themselves to be—sometimes the titles and terms used to characterize research proposals can determine their success or failure. If influential members of Congress who determine the budgets of federal research agencies are uncomfortable with, or hostile to, certain kinds of research, they will be sure to preclude it from funding, as they have done in recent times with much social science research in general (during the Reagan administration), fetal tissue transplantation research, research that can be interpreted as promoting homosexuality, and research on needle exchanges for preventing transmission of infectious diseases between injecting drug users.

Did I mean that this person should not consider submitting a grant proposal in her area? Not at all. Rather, I was suggesting that a change of phrase might make the difference between receiving funding and not (the scientific merit of the project notwithstanding). For many scholars, this is an unpalatable suggestion, as they believe that the power of words lies in the particular words themselves; to be told that those are not the ones that can be used seems like an intellectual and political betrayal.

The tension between conducting the research that social scientists believe is important to conduct—especially where it is linked to desirable social change—and compromising somewhat to make that research fundable is one of the first challenges feminist social scientists might face in attempting to break into the federal science arena. But an even more basic one is acquiring an understanding of how federal science policy, including priority-setting and funding decisions, is made. This is not part of the average graduate degree program in most social science disciplines, so following is a brief primer, provided as context for the remainder of the article.

FEDERAL S&T FUNDING: THE BUDGET PROCESS

Any assessment of federal science priorities and funding must begin with an understanding of the annual budget process. The U.S. federal government is the largest funder of research in the world. In FY1999, total spending for S&T (characterized in the budget as "research and development," or "R&D") was about $79.3 billion. Of this total, approximately $33.0 billion was devoted to research (as opposed to technology or product development); of the sum devoted to research, about $1.5 billion, or 4.5 percent, could be considered social and behavioral sciences (NSF 1999a). Although there are only a few federal agencies whose specific mission is to support S&T, such as NIH, the National Science Foundation (NSF), and the National Aeronautics and Space Administra-

tion, most federal agencies do have some sort of research program that supports it. Social and behavioral research is funded not only by NIH and NSF but also by the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, Interior, Justice, Labor, State, and Transportation and by a host of independent agencies, such as the Environmental Protection Agency, the National Endowment for the Humanities, the Smithsonian Institution, and the U.S. Institute for Peace.

The science budgets of these agencies, like all other federal programs, are a function of politics, in particular, the relationships between the president and his or her administration, Congress, and constituency groups. Every year, as the budget is developed and the congressional appropriations process plays out, these interests compete, conflict, and negotiate until the final allocations are determined.

For example, when this article was first being drafted, we were in the midst of the FY2000 appropriations process. The president's budget (which comes out each February) requested about a 2.7 percent increase over FY1999 for NIH. This compares to a nearly 15 percent increase Congress appropriated for FY1999. Early in the process, as happens every year, the congressional appropriators considered whether to meet, exceed, or reduce the president's request, and they took testimony from interested parties. The director of NIH, as well as the directors of its constituent institutes (for example, the National Institute of Mental Health, the National Institute of Child Health and Human Development, the National Cancer Institute, and so forth), appeared before the appropriations committees to defend the president's budget (even though most would have preferred greater increases, they were part of the administration and had to defend its budget). Constituency groups also appeared before the committees to opine about whether the president's request was sufficient or not to address the research of particular interest to them (usually they said it was not). In the case of NIH, there are two main constituency groups. The first are the so-called disease groups, representatives of people afflicted with certain diseases or disorders for which NIH is conducting research on prevention, care, or cures. Sometimes famous people speak for these groups to give their causes more visibility: for example, the actor Michael J. Fox recently has become a spokesperson for Parkinson's disease and lobbied for increased funds for the NIH institutes that support research in that area (Garnett 1999), as did Christopher Reeve for spinal cord injury research.

The second type of constituency group for NIH is the biomedical and behavioral (including social) researchers who apply to and receive grants from NIH to conduct scientific studies on diseases, disorders, and other health-related conditions. They are usually represented by their professional associations, a number of which are invited to testify annually during the congressional

appropriations hearings. For example, the Consortium of Social Science Associations, as the umbrella organization of the professional societies in the behavioral and social sciences, periodically testifies on their behalf and advocates for increased funds for social and behavioral research programs within the NIH institutes (for example, programs on child development, the demography of aging, social network factors in disease transmission and prevention, and so on). Similarly, the Association of American Medical Colleges testifies on behalf of academic medical centers that conduct health research and train the next generation of clinical researchers and practitioners; it advocates for increased funds for the NIH programs that support such research and training.

Constituency groups are not the only ones with particular funding interests. Within the president's overall budget request, the administration itself identifies some specific scientific initiatives and priorities, for example, developing a preventive vaccine against HIV. Members of Congress also have their own particular interests, usually related to diseases or disorders afflicting themselves or family members, for example, prostate cancer, breast cancer, Alzheimer's disease, and Parkinson's disease (Zitner 1999). The determination of which of these interests succeeds and what levels of funding prevail for what programs is part of an elaborate dance in which the congressional appropriators have the last bow (notwithstanding a presidential veto of the whole appropriations bill, which happens periodically). In addition to setting funding levels, the appropriations committees—with the help and at the prodding of advocacy groups—also write reports that articulate their recommendations (sometimes in the form of demands) about particular programs or areas of emphasis. The agencies receiving funds are obliged to address this report language. In recent years, such report language has instructed NIH to increase its attention to, and support for, among other things, research on women's health and on the behavioral aspects of diseases and disorders.

This complicated process just crudely described for one subagency (NIH is part of the Department of Health and Human Services) takes place not only in the larger context of all S&T funding but also in the context of other, non-S&T national funding priorities. Moreover, for the past few years, all funding priorities have operated in the context of the balanced-budget agreement struck by Congress and the president in 1997, which caps all federal spending at certain levels. What this fundamentally means is a zero-sum game. S&T is only one facet of the capped federal budget, and the health sciences are only one facet of S&T. Thus the budget of NIH competes not only with other programs within its same appropriation bill (Health and Human Services, Education, and Labor) but also, theoretically, with all other discretionary budget items, including other science agency budgets, such as that of NSF. Whether issues of concern to feminist social scientists are part of this overall

budget process is a function of whether they are on the radar of people who make federal S&T policy, members of Congress, the administration, or the constituency groups that lobby on behalf of both voters and campaign contributors.

FEDERAL S&T FUNDING: CONTENT

The process of S&T funding is not divorced from its content. As noted earlier, decisions about increased or decreased dollars for any particular science agency or research program reflect the priorities of Congress and/or the administration. Moreover, within S&T, there exists a hierarchy of disciplines, determined both by national policy priorities and by the culture of science. For example, for much of the mid- to late twentieth century, political concerns about the encroachment of communism and the Soviet empire in particular meant that the greatest S&T emphasis in funding was on weapons-based research, and physics was the most valued area of science. With the collapse of the Soviet Union, and a diminution of the sense of direct military threat to the United States, that emphasis has waned in relative terms. By the end of the twentieth century, as different national priorities have emerged based on economic, political, and demographic trends, other areas of science have ascended the S&T hierarchy. Most notable among these are the health sciences, as evidenced by the precipitously increased budget of NIH, and information technology, the subject of a new, multiagency programmatic initiative at the White House. The health sciences hold the promise of new technologies and products to improve health and longevity (which, of course, are of interest to the massive, and aging, baby-boom cohort) and have spawned new industries in biotechnology and genetic engineering that contribute to a booming economy. Information technologies are behind the current transformation of industrial society from one based on manufacturing material products to one based on processing information, and they also contribute to the booming economies of the United States and other highly developed nations.

Within general areas of science, there are also hierarchies, and in the U.S. system, these tend not to favor the behavioral and social sciences. For example, in the health sciences, although NIH supports a great deal of behavioral and social research, it is generally thought of and referred to as a "biomedical" science institution. Its structure and culture clearly favor the biological sciences over the clinical, behavioral, and social sciences. There is a historical current of antipathy for the behavioral and social sciences within the NIH institutional structure, as many biomedical scientists do not perceive behavioral and social research to be of the same caliber as their own sciences. Finally, even within the behavioral and social sciences at NIH, there is a hierarchy of disciplines. Psychology is more favored than sociology or anthropology, for example, perhaps because its content and methods—especially experimental psychology—generally are closer to those of the

biological sciences and perhaps because it is linked to an organ system, the brain.

In addition to these hierarchies of scientific discipline and methodologies, there are also differential expectations about outcomes. Although basic research in the biological sciences is valorized at NIH, behavioral research and social research usually are expected to have direct application. Indeed, the term "basic research" is used in NIH to connote fundamental biological sciences but not fundamental behavioral and social research. The common tripartite description of NIH's program is "basic, clinical, and behavioral" research. Thus, although the expansion of basic knowledge in an area of virology or immunology (for example, how HIV particles bind with certain cell receptors) is celebrated as a primary objective of NIH funding, a similar expansion of basic knowledge in an area of sociology or anthropology (for example, how gender norms in a given culture confer vulnerability to infectious diseases on women and girls) is not or, at least, was not until very recently. (I will come back to this a bit later on.)

This leads to another important point about the relationship between the content of research and federal S&T funding, which will not be surprising to feminist (or probably any) social scientists. It is that, to the extent that research is perceived to be threatening to those making decisions about S&T policy, it will not be supported easily. Any research that is perceived to be inherently political is suspect to federal funders. Feminist scholarship, with its focus on gender arrangements, addresses a fundamental issue in the lives of policymakers and decision makers. Like Marxist scholarship, it challenges core beliefs about social arrangements that might lead to demands for social change. This makes policymakers, like most people, quite uncomfortable, especially if they are enjoying the privileges of existing gender arrangements. (A favorite Washington anecdote refers to the fact that the U.S. Congress is the last group in America in which the traditional arrangements of employed husband/father and homemaker wife/mother still predominate.)

IMPACT OF FEMINISM ON THE S&T AGENDA AND FUNDING

The second context in which to examine the impact of feminism on federally funded social science research is that of the impact of feminism on S&T more generally. Although difficult to demonstrate in a causal way, the impact of political feminism (as distinguished from feminist scholarship per se) has perhaps been most significant in the realm of gender equity claims, specifically for greater representation of women in the S&T enterprise. Efforts to enhance the education, training, and employment of more girls and women in science and technology have increased significantly in the last couple of decades. These have required breaking down longstanding stereotypes and deeply held beliefs about gender differences and preferences, namely, that girls and

women are less suited to science than boys and men because they lack technical capacity. In great part based on rigorous feminist scholarship, legal and policy changes in the late twentieth century, especially affirmative action, have provided the institutional grounding for challenging the barriers formed from these stereotypes.

As a result of a host of concerted efforts on the part of schools, universities, scientific societies, and women's advocacy groups, the participation rates of women in S&T education and careers have grown precipitously, although they still lag far behind those of men in many scientific disciplines. For example, women now are earning close to 50 percent of the bachelor's degrees in science and engineering (S&E), up from 38 percent in the early 1980s. However, most of these are in the social sciences; women earned only 33 percent of the bachelor's degrees in physical sciences and mathematical and computer sciences and 17 percent in engineering in 1995. Similarly, women now are earning about 31 percent of doctoral degrees in S&E, with most still in the social sciences. For example, while women earned more doctorates than did men in psychology (the only S&E field for which this is the case), they earned only 10 percent of the doctorates in engineering in 1995. With respect to postgraduate employment, women composed slightly more than 22 percent of the S&E labor force and 22 percent of the doctoral scientists and engineers in 1995. Again, most of these women were social and psychological scientists rather than physicists and engineers (NSF 1999b).

In addition to increased representation in academia and industry, women also are more represented now in positions of power and authority in government, where S&T policy and funding decisions are made. Women as members of Congress and the cabinet, as staff within federal agencies, and as scientific peer reviewers all have an influence on the shaping of the federal S&T agenda. This influence could be seen most clearly in, inter alia, the rise of women's health research as a major item in the federal biomedical science agenda. As described in more detail elsewhere, this is the result of very determined action by women's health activists (including feminist scholars), a number of congresswomen, the existence of a female director of NIH, and the emergence of sophisticated women-focused (if not explicitly feminist) lobbying and public affairs firms (Auerbach and Figert 1995; Narrigan et al. 1997). Although it had its origins in the women's health movement that had been in existence for decades, the more recent policy action probably required the confluence of the following factors. It began with a Public Health Service Task Force on Women's Health Issues, which issued its report in 1985 and was cochaired by Dr. Ruth Kirschstein, the first and still one of the only female directors of an NIH institute. (Currently, Dr. Kirschstein is acting director of NIH, and women are directors of only 2 of the 25 NIH institutes and centers.) Key recommendations of that report,

which were subsequently picked up by the Congressional Caucus on Women's Issues—headed at the time by Representatives Patricia Schroeder (D-Colo.) and Olympia Snowe (R-Me.)—were greater attention to women's health issues and greater efforts to include women in NIH-supported clinical trials. Soon after, a number of other actions ensued, key among them being the creation of the Office of Research on Women's Health at NIH in 1990 (although it did not receive statutory authority until 1993) and the development of the Women's Health Initiative. The latter is a major longitudinal study of women's health that was introduced by Dr. Bernadine Healy, the first (and so far only) woman director of NIH, within two weeks of her confirmation in April 1991. These and other actions have resulted in much greater attention being paid to diseases and disorders that disproportionately affect women and in greater participation of women in clinical trials.

At the staffing level, the proportion of women in senior scientific administration positions with direct involvement in developing the NIH institutes' extramural programs increased from about one-third to one-half between 1990 and 1999 (NIH Human Resource Program Support 1999).

All of this, of course, takes place in a context in which women in the aggregate have more education, have more income, and participate politically more than ever before. It is not hubris to say that the impact of the feminist movement on American political and social life in general is at the root of any particular advances in the S&T arena.

IMPACT OF FEMINIST SCHOLARSHIP

In addition to greater representation of women in S&T, feminism is also responsible for affecting the content of S&T. To some degree, feminist scholarship has infiltrated the federal S&T enterprise, although it has done so in a somewhat diluted form. This is clearest in the ways in which the concept of gender has made its way into the common lexicon, for both good and bad, as noted elsewhere (Auerbach 1999). Although the use of the term "gender" in scientific research signifies some recognition of the social and cultural dimensions of biological sex, in many situations, "gender" has merely become a proxy for "sex" because it is perceived as a more "politically correct" term. One place in which this is most apparent is in the *NIH Guidelines on the Inclusion of Women and Minorities as Subjects in Clinical Research* (NIH 1994). Revised in 1994 as a result of the women's health advocacy efforts described previously, these guidelines require that women and members of minority groups and their subpopulations be included in all NIH-supported research projects involving human subjects, unless a clear and compelling rationale and justification is provided that such inclusion is scientifically inappropriate. (Cost may not be used as a rationale for exclusion.) As stated in the guidelines, the intent of this policy is

to ensure that all future NIH-supported biomedical and behavioral research involving human subjects will be carried out in a manner sufficient to elicit information about individuals of both genders and the diverse racial and ethnic groups and, in the case of clinical trials, to examine differential effects on such groups.

Although in one place the guidelines say that "Principal Investigators should assess the theoretical and/or scientific linkages between gender, race/ethnicity, and their topic of study," elsewhere the guidelines make clear that the review of applications will only assess appropriate representation of "both genders." The gender comparisons that are required only relate to statistical comparisons of outcomes by sex.

It is common, therefore, to see reference in NIH-supported studies to "gender differences" when in fact biological males and females are simply being compared on some dependent variable or outcome measure. Typically, these studies offer no analysis of how gender as a social and cultural construction is operating to produce whatever differences are observed by sex. However, it is important to note that in the past few years, specific attention to the dynamics of gender—in the way feminist scholars mean it—has emerged at the programmatic level at NIH.

For example, in the area of HIV and AIDS research, as the proportion of women contracting HIV infection from heterosexual relations has increased throughout the world, it has become clear to all involved in AIDS research that it is essential to better understand the ways in which unequal power in interpersonal relationships, based on cultural norms about gender roles and responsibilities, confers risk for HIV infection upon women in many societies. Although feminist scholars and advocates have made this point from the beginning of the global epidemic, even in the United States, where women were a minority of HIV and AIDS cases until recently, it has taken harsh epidemiological data to bring more mainstream AIDS researchers and policymakers to the same conclusion. So in the past few years, not only women but also the dynamics of gender have risen on the list of priorities for research in HIV prevention and care, and an increasing number of grants in these areas have been funded in recent years. The current emphasis on developing vaginal microbicides for preventing sexual transmission of HIV that women can use without the knowledge of or negotiation with men is particularly illustrative of this change (NIH 1999).

But other contributions from feminist social scientists largely have been unincorporated (if not ignored) in the federal science agenda. In particular, feminist critiques of the social organization of science, including the ways in which training for and conduct of scientific research may be gendered, are not commonly funded areas of research. As argued earlier, the reticence to fund such research is related to antipathy toward social science research in general as well as to discomfort about challenging existing social structural

arrangements from which most policy shapers currently benefit.

STRATEGIES FOR GREATER IMPACT

The impact of feminism on federally funded S&T can easily be seen as a "glass is half-empty or glass is half-full" phenomenon. Clearly, much progress has been made, but much work remains to be done to have the goals and analyses of feminist politics and scholarship fully realized. There are some simple, but useful, strategies that may help move things along even further, although they often require intellectual and political compromise that is too difficult for some feminists to accept.

First, many of the gains made by feminist scholars, and women generally, in the federal S&T arena have been made stealthily. Rather than explicitly promoting a straightforwardly feminist program, many feminist women and men have moved their agendas forward by using what appear to be less threatening approaches to their audiences. For example, rather than arguing the importance of redressing gender inequality in biomedical research, savvy advocates for increased funding for breast cancer research instead appealed to the paternalism of male members of Congress (and society at large) by focusing on the possibility that their mothers, wives, or daughters might be afflicted. Cast in this way, women's health research became something even very conservative congressmen could, and did, support. Choosing frameworks and words carefully can be an effective strategy.

A second and related strategy is to translate complex questions and analyses into simpler and more familiar language. This is a particular challenge for intellectuals of any discipline, because we hold our concepts and our claims very dear and have engaged in many contests to defend them within the scientific community. To then have to distill and translate them into what to us seem more banal and incomplete terms can feel like an assault on our intellectual integrity. From the perspective of affecting policy action, however, conceptual fidelity is much less important than providing policymakers tools that they can understand, find persuasive, and then use among their colleagues to influence change.

This point leads to a third strategy for increasing the impact of feminism, and that is to make our research fit the funders' missions and priorities. All federal agencies have mandates and missions spelled out in their authorizing legislation. In addition, most agencies that fund research have operational agendas, or "strategic" plans, that outline their scientific programs and funding priorities. In many cases, academic researchers have been involved in the processes of developing such plans and priorities (federal agencies usually engage outside constituency groups in these efforts), so their agendas may already be woven within those of the agencies. In any event, potential grantees should pay

careful attention to the stated priorities of the funders. This does not mean that one cannot do the research that most excites one; rather, it means that one must develop ways of framing that research within the priorities of the funders. Here, too, some concessions may have to be made with respect to the concepts, terms, and frameworks employed or at least how they are described in a grant application. But savvy grantees usually manage to conduct the research they want by finding ways to articulate their projects within the agendas of the funders.

CONCLUSION

Late-twentieth-century feminist politics and feminist scholarship have had a significant impact on the process and content of federally funded S&T, which may not be entirely evident to people outside the federal enterprise. The impact may be more observable to those of us on the inside because we can directly see—and appreciate—the incremental nature of change, given what we know about the bureaucratic and political processes operating. Those on the outside may be less patient, especially if it is their research that is not (yet) being funded. But, by better educating themselves about the dynamics of science policymaking and budgeting, and by being better political actors themselves—for example, by making their scholarship understandable and relevant to policymakers in order to get it on their radar in the first place—feminist social scientists can help hasten the process of change.

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