

Project Description

"Science for the People: The 1970s and Today"

A Proposal for a Three-Day Conference

NEED FOR THE GATHERING AND LIST OF TOPICS

What are the central problems of science and democracy, and how should scientists and other concerned citizens approach them? Many today are frustrated by the political obstacles scientists face in pursuing their research and educational goals. They are frustrated by climate change denial, by bans on stem cell research, and by attacks on teaching evolution in the schools. Typically, the blame is placed at the feet of scientific illiteracy. According to accepted wisdom, better science education and better communication from scientists is needed to create a public capable of understanding the science behind the many dilemmas the world faces today. Education for scientific literacy is of unquestionable importance. However, this is not the only possible approach to problems of science and democracy. Another approach, rooted in an analysis of political, economic, and social power relations, once attracted considerable attention from scientists and others committed to harnessing science and technology to serve human needs. While sidelined in mainstream discussions, this type of analysis continues to inform the perspectives of critical STS scholars and scientists today (see full discussion below), and if more widely embraced would greatly enrich our public discussions of energy policy, medicine, environmental conservation, agricultural technologies, and other issues.

Although its history has received relatively little scholarly attention,¹ the Science for the People (SftP) movement of the 1970s and 1980s is widely recognized among STS scholars as an historically important example of this alternate approach. Science for the People (SftP), originally called Scientists and Engineers for Social and Political Action, arose out of the anti-war movement during the Vietnam War era. Prominent scientists like Stephen Jay Gould, Richard Lewontin, and Richard Levins, alongside many "rank-and-file" scientists, engineers, doctors, nurses, social workers, graduate students, and others participated in SftP chapters around the country, mainly located on college campuses. SftP departed from the liberal model of scientist activism adopted by Union of Concerned Scientists and other organizations, where scientists worked within the system to influence policy. With a Marxist analysis and non-hierarchical governing structure, its members tackled the militarization of scientific research, the corporate control of research agendas, the political implications of sociobiology theories, environmental consequences of energy policy, inequalities in health care, agricultural science and food justice, and many other issues. They opposed racism, sexism, and classism in science and above all sought to mobilize people working in scientific fields to become active in agitating for science, technology, and medicine that would serve social needs rather than military and corporate interests. They organized in universities and communities, published a magazine offering sharp political analysis, and sought meaningful scientific exchange internationally in Vietnam, China, Cuba, Nicaragua, and other countries.

1 The most important exception Moore 2008, discussed below.

While SftP members promoted science education, they did not see the public's "ignorance" to be the chief problem. Rather, they focused on power structures that impeded the production, circulation, and application of socially beneficial scientific knowledge. In this way, they resembled STS scholars who have striven to inject social, economic, and political analysis into discussions of science and the public. In fact, the resemblance of SftP to STS should come as no surprise given the cross-pollination between early STS scholars and SftP members—a connection that continued after SftP's demise in 1989 (see, e.g., Ross 1996 and Nader 1996).

The time is ripe to gather SftP veterans with other scientists, activists, students, and STS scholars in an exploration of what the history of SftP can teach us. Scientists need to develop more effective analyses of the social and political causes of the problems they seek to address. Activists need to obtain a better grasp of the scientific dimensions of their causes and a clearer sense of who their allies are in the scientific world. Students need to learn strategies for putting their science education to work in ways consistent with their social and political goals. And STS scholars need to deepen our understanding of an organization that had an important, though under-acknowledged, early influence on our field (Martin 1993) and to explore how re-establishing engagement with activist scientists might enrich our own research and writing.

We are planning a weekend conference on the UMass Amherst campus to be held 11-13 April 2014. The conference will provide a public forum for participants to discuss the following questions:

- What were the central premises underlying SftP work, what made it an effective organization, and what were its limitations? Specifically, what consequences did SftP's commitments to non-hierarchical organizing, anti-elitist politics, engagement with radical social movements, and working outside the system have for its ability to effect change compared with such older, liberal organizations as the Union of Concerned Scientists?
- What has changed since that time, both in terms of the issues the world faces and the political principles that activists embrace? How does SftP compare to more recent efforts to transform science in terms of scope, critical approach, and effectiveness?
- How can scientists and activists work together, and what tensions exist between them?
- How can STS scholars contribute to these conversations, and how can an exploration of the history of Science for the People contribute to the development of the growing STS literature on science and activism?

To explore these questions, we are organizing two keynote speakers, a series of panels, a poster and tabling session, and networking opportunities.

Keynote speakers: We will invite two speakers to provide keynote addresses.

One will be an STS scholar who will place SftP in the larger context of the history of science activism, and/or speak to the broader question of "ignorance" vs. "power" as analytical frameworks in the study of "science and the public." The Organizing Committee is currently considering inviting Cliff Conner, Kelly Moore, or Naomi Oreskes.

The second keynote speaker will be a former member of the original SftP organization who will discuss the significance and limitations of SftP's approach to transforming science in the U.S., then and now. The Organizing Committee is currently considering inviting Jonathan Beckwith or Richard Lewontin.

Panels:

We will offer two panels, featuring mostly STS scholars, specifically on the historical and lasting significance of the Science for the People movement. Sigrid Schmalzer (UMass Amherst) will discuss SftP's transnational engagement through its work on science in China, Nicaragua, Vietnam, and other countries; Banu Subramaniam (UMass Amherst) will examine the significance of SftP from a feminist science studies perspective; Jennifer Tucker (Wesleyan University) will examine the role of iconography (for example, the fist-and-flask logo) in SftP. We will recruit other speakers to discuss other key aspects of SftP history.

We will offer six to ten further panels on specific issues with panelists speaking on how members of SftP approached the issue in the past, how the issue has changed over time, and what people are doing (or might be doing) today to tackle the issue. Panelists will include former SftP members, STS scholars, and scientists. Some potential panelists have already been identified; others will be recruited locally and through personal connections. While the panels topics are still under discussion, we are now working on the following topics:

- The military and scientific research
- Climate change and energy policy
- Women and science
- Teaching social justice in science
- Agricultural science, agri-business, and food justice
- Ethical questions in genetics and theories of biological determinism
- Confronting creationism
- Toxins and occupational and public health
- Science journalism
- How to make a career as a progressive scientist

Sample panel:

We are still in the early stages of organizing the panels. The following is an initial proposal from four of our participants for a panel on "The Militarization of Science: SftP's Historical Impact and Current Challenges."

"This panel will discuss how SftP scientists and activists envisioned and enacted policy changes vis-à-vis the militarization of scientific research in the United States. SftP molecular biologist Jonathan King (MIT) will focus on scientists' contributions to the strengthening of the Biological Weapons Convention (BWC), which resulted in the Senate ratifying Article IV of the "Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological and Toxin Weapons." This ratification was the result of a national and international campaign against the Reagan-administration policies that had revived biological weapons research. Former SftP scientist and editor of Science of the People, Steve Nadel will address the history of anti-nuclear organizing at the University of California, which gave rise to the Livermore Action Group that organized many mass protests in the early 1980s against nuclear weapons produced by the Lawrence Livermore National Laboratory. In linking SftP-era interventions to contemporary issues, activist Frances Crowe will show how SftP work against the militarization of science inspired broad activist work in local communities, such as Amherst, MA. In 1989 Ms. Crowe worked with King to oppose anthrax research at the University of Massachusetts, Amherst. STS scholar Elke Heckner will conclude by discussing today's

challenges resulting from the recent US wars in Afghanistan and Iraq, drawing attention to the much overlooked militarization of research on Post-Traumatic Stress Disorder in the clinical push for Virtual Reality (VR) exposure therapy for veterans and survivors of extreme trauma (such as rape). The revival of a Skinner-oriented behavioral therapy as a cost-effective and temporary fix of PTSD raises serious concerns, not only because its long-term efficacy is controversial, but also because its understanding of the human mind-body as a machine that can be reprogrammed reinforces a militaristic ideal of masculine invulnerability.

Poster and tabling session:

Because interested participants with worthy contributions to share exceed the number we can accommodate in two days of panels, we will provide opportunities for participants to display posters and other materials on topics relevant to the conference.

Networking opportunities:

A key goal of the conference is to allow STS scholars, scientists, and science activists to meet one another and explore possible future collaborations. We will facilitate such networking opportunities not only through meals, coffee breaks, and optional extra activities, but also by using our conference website to allow registered participants to identify one another and set up meetings before and after the conference itself. We are especially interested in helping students identify mentors among former SftP members who are now working in a range of professions that allow them to use their STEM educations in ways that are consistent with their values—from university research scientists like Jonathan Beckwith, to university administrators like Vinton Thompson, to employees of federal agencies like Robert Park (National Institute for Occupational Safety and Health), to directors of non-profits like Steve Nadel (American Council for an Energy-Efficient Economy). The website will provide brief biographies of conference participants and will provide communication pathways for students looking to explore career opportunities in their fields.

ORGANIZATION OF THE CONFERENCE AND DISSEMINATION OF RESULTS

The conference will be hosted by the UMass Social Thought and Political Economy Program (<http://www.umass.edu/stpec>), of which Sigrid Schmalzer will be Director beginning September, 2013. The UMass Amherst campus is an ideal location not only because of its proximity to Boston/Cambridge and New York (two key hubs for former SftP members) but also because of the convenience afforded by the full conference center and hotel at UMass and because of the intellectual vibrancy of the Five College community. (The "Five College Consortium" of western Massachusetts includes Amherst College, Hampshire College, Mt. Holyoke College, Smith College, and UMass Amherst.) We expect local co-sponsors will include Five Colleges, Inc., the Five-College Feminist Science Studies Initiative, the UMass History Department, the UMass College for Social and Behavioral Sciences, the UMass College of Humanities and Fine Arts, and numerous other departments and colleges at UMass and the Five Colleges.

We have created a list-serv and website (<http://www.science-for-the-people.org/conference.html>) to facilitate conference planning by some of the 65 members of the larger SftP community (veterans of the original organization and younger members of an SftP revival listserv) who have already expressed interest in the conference, along with STS scholars from around

the country, and faculty and students on the UMass campus and in the wider Five-College community.

To provide further local interest and support for the conference, two undergraduate seminars will be organized: one led by Sigrid Schmalzer at UMass in spring 2013, and the second led by Alan Goodman at Hampshire College in fall 2013. Students will explore the history and legacy of SftP and will have the opportunity to contribute in a substantive way to the conference planning and organization.

In preparation for the conference, former SftP members will produce written narratives of their experiences in SftP. Graduate students of participating STS scholars (two of whom will be supported with stipends from this grant) will organize these narratives and provide analytical interpretation of their significance within STS. (The graduate students will be chosen by the Organizing Committee based on their demonstrated ability to complete the work; every effort will be made to ensure ethnic and gender diversity here as elsewhere in the conference.) The graduate students will be given the option of pulling the materials together into a form submittable to a University Press. If this proves impractical, the conference website will make the narratives and analysis broadly available, and the UMass Amherst Special Collections and University Archives will serve as their permanent institutional home.

Upon completion of the conference, the website <http://www.science-for-the-people.org/conference.htm> will be made public in order to provide wide access to the conference's accomplishments. Melanie McCalmont is taking primary responsibility for the technical features of the website, while Sigrid Schmalzer is taking primary responsibility for the content. We have made a portion of the website available to reviewers to demonstrate both the conference planning underway and to provide a sense of the materials we will make available after the conference. (Please see below under "Broader Impact" for more on the website's proposed contents.)

CONTRIBUTION TO THE ENHANCEMENT OF SCIENTIFIC, ENGINEERING, AND EDUCATIONAL ACTIVITIES (I.E., INTELLECTUAL MERIT AND BROADER IMPACT)

Intellectual Merit

Despite its significance, the history of Science for the People has been largely neglected by STS scholars since the movement itself was in its heyday.² One reason for the relative dearth may be the notion that SftP—and radical politics more generally—ultimately failed to present a viable approach to democratizing science.³ However, in a 1975 discussion of the significance of radical science movements (SftP included), Donna Haraway offers an important caution for those who might otherwise dismiss the continued relevance of such movements: "We must not let the utter powerlessness of dissidents in the short range in advanced capitalist conditions deter us from learning from them about the political implications of our particular way of teaching about scientific thought" (Haraway 1975, 459).

Indeed, one of the most important reasons to study Science for the People is for the challenge it offered to mainstream understandings of the political contexts undergirding the

2 The most important exception is Kelly Moore's *Disrupting Science* (2008), discussed below. See also Wisnioski (2003).

3 See, e.g., Slayton's discussion of an earlier article by Kelly Moore on SftP (Slayton 2007, 61 n. 106).

production, circulation, and application of knowledge. As Brian Martin later argued in "The Critique of Science Becomes Academic" (1993), early STS theory benefited tremendously from the analyses of activists like those involved in SftP, and activists benefited from reading the works of STS scholars like Rose & Rose and Robert Young. However, as STS grew more "professional" in its orientation, Martin argued, the willingness of STS scholars to engage seriously *with* and *as* activists diminished, and the literature presented a striking "lack of acknowledgment of [the] radical or activist origins" of the ideas advanced therein.

The gauntlet Martin threw unsurprisingly offended many STS scholars, and was often taken as a criticism of the epistemological questions the field engaged. And it must be said, Martin's article failed to recognize the tremendous and productive influence that epistemologically oriented work of feminist scholars in particular (see, e.g., Donna Haraway, Sandra Harding, and Emily Martin) has had on activists—here, at least, the connection between activists and academic STS has not disappeared. However, several of Brian Martin's key points hit home: the overall insularity of STS, the failure to recognize activist antecedents, and the waste of our efforts if our work does not effectively intervene in the very concerns that first motivated many of us to enter the field in the first place. Whether inspired or offended by Martin's polemic, many STS scholars in recent years have been moving the field back toward study of and engagement with science activists.

The conference "Science for the People: the 1970s and Today" will provide scholars an opportunity to move further down this path and along the way to develop three areas of growing importance within STS. First, it will support the effort to replace the simplistic understanding of "science communication" promoted by mainstream "public understanding of science" circles with a more sophisticated analysis that accounts for political, economic, and social power structures. Second, by capturing video of discussions with former SftP members, collecting written narratives they provide, and organizing this material along with text-searchable pdfs of SftP-produced materials in a public website, the conference will provide additional resources for the study of science and political activism. Third, it will offer a venue for the further exploration of what Woodhouse et al have termed "activist-oriented STS," an area that has witnessed a number of rigorous and stunningly influential contributions in recent years.

1. From "Ignorance" to "Power." Mainstream discourse on the essential problems of science and democracy is dominated by concerns about the lack of a "public understanding of science" and the need for better "communication," almost invariably understood to mean unidirectional, top-down communication from professionals to lay publics. This perspective crystallized with the 1980s emergence of the "public understanding of science" (PUS) movement in Britain and the U.S., gained its own specialist journal in 1992, and continues to grow in influence today.

STS scholars have repeatedly challenged this discourse within STS journals and books. Stephen Hilgartner (1990) demonstrated that, contrary to the "dominant view of popularization," communication does not proceed in a one-way and top-down fashion from "pure" professional science to "simplified" or "polluted" popular science; rather the boundaries between professional and popular knowledge are blurry and influence works in both directions. Hilgartner further argued that the dominant view has become so powerful because it serves the interests of scientists "and others who derive their authority from science." Alan Irwin and Brian Wynne,

together with the contributors to their edited volume *Misunderstanding Science?* (1996), have criticized what they and others term "the deficit model" underpinning PUS by arguing that it is not so much that the public misunderstands science, but rather that scientists misunderstand the public, science, and understanding. The public, they note, is more diverse than the deficit model recognizes; and since science is a social activity, social identities play a crucial role in the production and circulation of scientific knowledge. For these reasons, they propose "replac[ing] the notion of 'public ignorance' with a much richer pattern of social relations and personal understandings" (6), in which "the social negotiation of power and social order in relation to science and technology" (1) is central. And as concerned scientists increasingly make noble efforts to recognize the importance of their own public "communication," STS scholars have been identifying science itself as a "form of communication" (Secord 2004) and are striving to articulate a more sophisticated explanation of what "communication" actually entails. To take just one example, Rebecca Slayton (2007) has critiqued the assumption of a "stark difference" between scientific and public forms of knowledge; building on decades of work in STS, she offers instead a "more complex model of lay-expert communication" that "treats communication as a flexible resource that actors use to suit their needs" (28-29).

Despite these and a great many other STS contributions to knowledge of the social, economic, and political relationships that structure public arguments over science and that belie simplistic assumptions about the role of "communication," we have not yet been successful in shifting the larger public discourse. Yet, neither should we fall into the trap of imagining that "the public" outside STS circles is eternally wed to a "simplistic" understanding of the social relations of science. Rather, the history of Science for the People demonstrates that scientists and activists are fully capable not only of comprehending, but of contributing to well-documented and accessible analyses that account for the workings of social, economic, and political power.

The proposed conference would provide an invaluable opportunity for STS scholars to explore the perspectives on the politics of knowledge that members of Science for the People articulated, and thus to advance our own challenges to analyses that would focus on "ignorance" to the exclusion of "power." Just as STS scholars have highlighted the two-way flow of knowledge between science and "its others" (Bensaude-Vincent 2009), we should recognize both the existence of, and the potential for better cultivating, flows between STS and "its others." In acknowledging the influence that Science for the People's contributions had on the development of STS, we will enhance our understanding of our own field's production of knowledge. Moreover, we will gain a better appreciation for the potential of our own analyses of power in the social relations of science to gain a wider audience.

2. The Study of Science and Activism, and the Development of "Activist-Oriented STS."

Recent years have witnessed a growing interest among STS scholars in the subject of "science activism." Science for the People has in the process gained some notable attention—most importantly in Kelly Moore's award-winning 2008 book, *Disrupting Science: Social Movements, American Scientists, and the Politics of the Military, 1945-1975*, which takes Science for the People as one of three cases of movements led by scientists whose activism "disrupted" the accepted relationship between science and politics, and especially science and the military.⁴

⁴ See also, e.g., Segerstrale 2000 and Jumonville 2002 on SftP's involvement in the debates over sociobiology and Schmalzer 2007 and 2009 on SftP's delegations to the People's Republic of China.

Though Moore presents a rich and provocative discussion of SftP's role in challenging the the militarization of science, and in the process explores a number of other questions of deep interest to STS scholars, there is still much more work to be done to uncover the many ways the history of Science for the People can contribute to the development of the growing STS literature on science and activism. Not only did SftP inhabit a pivotal historical moment, but the movement tackled head-on issues that STS scholars have since highlighted as core questions in the field.

Among the most important of these questions is the construction and leverage of scientific expertise—a question at the heart of STS generally, and one particularly on the surface in the study of science activism, where scientists, engineers, doctors, and other "authorities" encounter activists without professional credentials. Some of these activists lack scientific knowledge but bring to the table other forms of valuable knowledge, which go unrecognized unless the professionals are able to think outside their accustomed frames (see, e.g., Irwin and Wynne 1996; di Chiro 2004). On the other hand, as Steve Epstein documented in his landmark 1996 book on AIDS science and AIDS activism, some activists acquire sufficient scientific knowledge to participate within the terms the professionals have set. These activists present their own challenges, not only to lay/expert boundaries but also to their own activist communities as they become more sympathetic to the perspectives of establishment science and thus risk replicating the lay/expert divide. Sabrina McCormick's 2009 *Mobilizing Science*, takes this analysis a step further: through the cases of the environmental breast cancer movement in the U.S. and anti-dam activism in Brazil, she shows that even as laypeople challenge scientific expertise, the "cooptation" of what she terms "democratizing science movements" is often the "default outcome" because the "norms of science" restrict how activists and scientists alike must engage (172).

Kelly Moore's 2008 *Disrupting Science* approaches the construction and leverage of expertise from a different angle by turning the focus on activist scientists.⁵ Though their possession of professional credentials make establishing authority less of a pressing issue, activist scientists from a range of political perspectives have nonetheless found themselves challenging the very boundary between science and the public—what Moore calls "autonomy"—that is typically assumed to give scientists authority in the first place (see also Wisnioski 2003). Moreover, for the radicals involved in Science for the People, the implied hierarchies involved in the construction of scientific expertise was a persistent concern. As Moore argues, SftP was highly critical of the elitism displayed by earlier scientists' public interest movements, and they were alert to the creeping problems of elitism within their own organization, though they "never collectively resolved the problem of how best to assist the working class without resorting to the use of expertise" (131, 184, 159). Schmalzer further documents the ways SftP members—not all of whom held or aspired to hold advanced degrees—struggled over the relationship between "professionalism" and "politics": i.e., how to undermine elitist privilege without "derogat[ing] people with Ph.D.s," how "to understand [the] connections [of professionalism] to class position and bourgeois society, its existence as an attitude to be struggled against (in ourselves as well as others)," and how to "develop relevant scientific skills" without engaging in "narrow professionalism" (Schmalzer 2009, 326).

Today, former members of SftP continue to prioritize such questions in contributions to a

5 This term comes from Moore's 2008 "Organizing Integrity: American Science and the Creation of Public Interest Organizations."

revival SftP list-serv (begun in 1998 by a group of former SftP members and others interested in reviving the organization's mission and hosted by the University of Vermont) and in discussions about how to organize the conference for which this grant is being submitted. As one former member now involved in conference planning recently emailed, "The issues of anti-elitism [and] challenging the power of academic hierarchies were... fundamental core political practices and [central to the] identity of SftP," pointing to the "need to keep a very open perspective to involve those former SftP'ers and interested parties from outside academia." The proposed conference will offer a unique opportunity for STS scholars to discuss the negotiation of the lay/expert divide within SftP and to engage with activists (some of whom are scientists, and some not) who have spent decades pondering and arguing over this question so central to STS.

Moore's study of SftP touches on another important pair of questions that deserves further exploration in relation to the broader STS literature: the place of feminism in SftP's critique of science and the struggles of women members of SftP to overcome sexism within the organization itself. (Beyond STS literature on science and activism, the feminist science studies literature is, of course, substantial and developing quickly.⁶) SftP's magazine frequently published articles on such topics as the women's health movement, discrimination against women science professionals, biological determinism, violence against women, women and occupational safety, and the implications of reproductive technologies for women. Moreover, the famous attacks on sociobiology and genetic determinism led by such SftP members as Jonathan Beckwith, Stephen Jay Gould, Sheldon Krimsky, Dick Levins, and Dick Lewontin foregrounded the problems of both racism and sexism in genetics and the evolutionary sciences (Jumonville 2002). However, as Moore discusses, women members of SftP were repeatedly frustrated by male domination in their chapters. Noted scientist, activist, and contributor to STS scholarship Rita Arditti was among the women who felt that keeping feminist concerns central to SftP discussions was "risky" and "a constant struggle" (184). The proposed conference will highlight questions of science and gender in several places: in panels on the history of SftP (with contributions by feminist STS scholar Banu Subramaniam), in a panel devoted to the critique of genetic determinism in science then and now, and in a panel focusing specifically on women in science. Given the strength of feminist science studies at UMass and the greater Five-College system, these offerings are certain to spark lively and rich discussions.

In addition to discussing the history of SftP in relation to questions of the lay/expert boundary and the intersection of feminism and science activism, the conference will provide an opening to explore a number of other key ways the history of SftP can shed light on STS themes. For example, Sigrid Schmalzer will draw on her study of SftP's China delegations to examine SftP in relation to the burgeoning literature on transnational science, and Jennifer Tucker will use her expertise in the area of science and visual culture (another important subject in STS scholarship today) to explore the significance of such powerful SftP icons as the "fist and flask" logo.

3. Furthering an "Activist-Oriented STS." This conference will provide STS scholars with an opportunity to develop not only further research into science and activism but also the area that Woodhouse et al have termed "activist-oriented STS." In their 2002 article "Science Studies and Activism," the authors usefully cite Patrick Hamlett's argument that it is a "small step from

6 See the special issue of *Hypatia* (19.1, 2004) on Feminist Science Studies; also Subramaniam 2009.

asserting that technologies are socially constructed... to asking more normative questions: How should technologies be constructed? Which 'relevant social groups' ought to be included in the process? Are there morally preferable ways for the creation of technological frames? How should interpretive flexibility come to closure? When and how should closure be re-opened?" (Hammllett 2003, 115).

Some STS scholars (as with scholars in other fields, where such debates also abound) continue to harbor doubts about the appropriateness of mixing politics and scholarship, and a great many others may simply find they are able to make their best contributions by refraining from direct political engagement. However, a growing number of STS scholars have embraced explicitly activist agendas in their work (Epstein 1996, Fortun 2001, di Chiro 2004, Eubanks 2006, Herkert 2008, Stevens 2008, Warner 2008, McCormick 2009b, Oreskes and Conway 2010, and Proctor 2012, among many others). Moreover, some of these authors are satisfying Woodhouse et al's call to address audiences beyond the STS community itself. For example, Oreskes and Conway's 2010 *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* and Proctor's 2012 *Golden Holocaust: Origins of the Cigarette Catastrophe and the Case for Abolition* have attracted impressive public attention. Meanwhile, di Chiro, Eubanks, Fortun, and others have embraced "participatory action research" and other methodologies that make researchers and research subjects allies in advancing the voice of the research subjects and the causes for which they fight.

The proposed conference will enable STS scholars to explore possibilities for "activist-oriented STS" around a wide range of issues. It will provide a historical perspective on engaged professionalism from the era of SftP. And it will present opportunities to connect with scientists and activists working on current problems of mutual interest.

Broader Impact

We have already discussed the benefits to STS scholars arising from the kind of public engagement with scientists and activists that this conference will offer. Here we will address the benefits to participating scientists, activists, and students.

SftP was founded by scientists and engineers, some of whom had a strong background in political philosophy and all of whom had a willingness to study the social, political, and economic contexts in which scientific knowledge is produced, circulated, and applied. Members of SftP benefited greatly from the analyses supplied by early STS scholars like David Noble and Hilary Rose. As STS scholarship has evolved, its discourse has become increasingly opaque to those in the natural sciences, including those who continue to immerse themselves in political study. Contributors to the current SftP list-serv (hosted by the University of Vermont) often appear sympathetic to efforts by Alan Sokal and others to discredit STS scholarship, or at least its more "postmodern" currents. However, it is also clear that STS scholars and politically engaged scientists have much to say to one another—witness the coming together of STS scholars and scientists (including a number of SftP veterans) in *Science Wars*, the volume Andrew Ross (1996) assembled in the wake of Sokal's infamous *Social Text* prank. The proposed conference will provide activist scientists with an opportunity to learn from STS scholars themselves about current STS scholarship and its potentially significant contributions to activist understandings of the political, social, economic, and cultural contexts of scientific knowledge.

Looking beyond SftP circles, most people who work in the sciences have very little

background in STS or social theory more generally. And yet a great many of them recognize the political and social significance of their research in environmental and health sciences, among other areas. By providing exposure to SftP history and STS perspectives, the conference will help scientists and engineers gain a better understanding of the social, political, economic, and cultural contexts of the problems they seek to address through their scientific work.

Some of the conference participants (including a few of those recruited through the current SftP list-serv, along with people from the surrounding community) will be activists working on science-related issues but who do not have a strong background in science. Activists working on nuclear power, climate change, sustainable agriculture, health care, and many other issues need reliable scientific knowledge but too often see "science," writ large, to be an opposing force. This frequently leads to the spread of highly suspect information, the waste of much time and energy, and distraction from more critical questions. Meanwhile, scientists are often frustrated by what they see as activists' lack of knowledge and apparent willingness to believe the wildest claims so long as those claims buttress the activists' political positions. Scientists are no doubt right to point to public scientific illiteracy as one aspect of the problem. However, as discussed above, STS scholars have shown that identity, trust, and other *social* phenomena are of critical importance in shaping who accepts what forms of scientific knowledge. By bringing STS scholars, scientists, and activists together in a public forum, this conference will help provide a rare opportunity for members of these different groups to work together on issues of common concern.

Many of the members of the original SftP were graduate students or early-career professionals facing the dilemma of how to reconcile their career goals with their political ideals. Some continued in research positions at prestigious universities and used those positions to continue to advocate for change.⁷ Others left academia for jobs in secondary education, publishing, union organizing, government agencies, or other fields; or they combined work in and outside of the academy. Students today—both undergraduate and graduate—are faced with similar, if not identical, issues. They may be drawn to science because of a desire to "do something" about climate change, health care inequalities, agricultural sustainability, or other issues. But without an effective analysis of the political and social contexts of those issues, they risk becoming overly narrow in their approaches. And without sufficient mentoring from role models who have found ways to make science work "for the people," they risk becoming disillusioned or missing opportunities to explore relevant career tracks. Members of the planning list-serv have expressed enthusiasm for organizing a panel specifically on "How to make a career as a progressive scientist." Beyond that panel, the conference will offer a unique opportunity for students to encounter professionals in the sciences and in STS who are making a wide range of contributions in the areas that matter most to them.

Finally, the conference website will provide a lasting way for people around the world to learn about the history of the Science for the People movement and its relevance today. The site will provide short interpretive articles by STS scholars on the history and significance of SftP, written narratives by former SftP members with analysis by graduate students in STS fields, a summary of the conference's major themes, panel descriptions, video recordings of the panels, and select scanned

⁷ A different example is Vinton Thompson, who remained in academia but turned to academic administration. He is now the president of Metropolitan College of New York, formerly Audrey Cohen College, which has an impressive progressive history and continues to provide working-class students with unique opportunities to pursue higher education.

archival materials produced by SftP and donated by former SftP members. (Charles Schwartz, former member of SftP and Professor Emeritus of Physics at UC Berkeley, has posted back issues of the magazine *Science for the People* along with some foundational documents. The conference website will build on that collection, focusing on materials related to specific issues addressed in the panels.) The website will also provide links to other relevant resources (e.g., information on the SftP archives at MIT, the SftP list-serv hosted by UVM, and the revival DC Metro Science for the People website) and will accept submissions (e.g., worthy student research papers) from other interested parties.

LIST OF RECENT MEETINGS ON THIS SUBJECT

This would be the first conference to gather STS scholars, scientists, and activists specifically to discuss the history of Science for the People and its relevance for science activism today.

We are, however, excited to note that the eighth annual Science in Public conference will be held in July 2013 at the University of Nottingham. The theme this year is "Making Science Public," and promises to include discussion of activist publics who "are increasingly contesting certain forms of research" and activist scientists who are "uniting in protest against the privatisation and commercialisation of their work or highlighting their lack of representation in government." We plan to follow the proceedings of the 2013 Science in Public conference and make connections with participants who would be interested in "Science for the People: The 1970s and Today."

RECRUITMENT OF SPEAKERS AND OTHER ATTENDEES

Through networks of former SftP members, advertizement on the current SftP list-serv (hosted by UVM), and communication with STS scholars, scientists, and activists in the greater UMass / Five College community, we have already begun building a substantial list of potential panelists and other attendees. Our conference planning list-serv and website are helping not only to recruit, but also to ensure that interested parties remain invested in the conference. As the conference draws nearer, we will also advertize on relevant professional list-servs and through local and regional campus and activist networks.

As the organizers finalize the topics for the specific panels, we will identify gaps in our list of presenters and fill those gaps through targeted recruiting. For example, we may find that a panel on agricultural science and food justice is strong in SftP history, the current sustainability movement, and agricultural science, but lacks an STS perspective. In that case, we would recruit one of the many STS scholars engaged in research on agriculture and food to round out the panel. In recruiting among qualified presenters, our priorities will be 1) achieving gender and ethnic diversity; and 2) tapping our abundant local resources (to keep costs down).

We are especially interested in ensuring a high level of participation among students. In addition to cultivating a high level of commitment among a handful of students through the offering of two seminars at UMass and Hampshire College (discussed above), we plan to recruit local students through departmental list-servs, announcements by faculty in classes, and engagement with student activist organizations and student societies in STEM fields (especially those specifically oriented toward women and people of color, such as the National Society of Black Engineers).

Based on our current list of interested participants, the strength of the Five College Feminist Science Studies program, and the attention the conference will pay to highlighting questions of women in science, we anticipate an excellent gender balance for the conference. Ensuring high levels of participation among people of color will require a somewhat more explicit effort. In addition to targeted recruiting of speakers, we will highlight the relevance of race to a number of the key issues discussed in the conference (e.g., genetic determinism, food justice, and climate justice) and will advertize the conference through our connections with UMass and Five College programs in African American Studies and other ethnic studies departments.

ORGANIZING COMMITTEE MEMBERSHIP INFORMATION

Our conference planning list-serv and website currently has 65 members, of whom 13 are serving on the Organizing Committee. The Organizing Committee includes both STS scholars and members of the original SftP organization who now work in research, administration, and the non-profit sector. To facilitate effective planning, most of the Organizing Committee is located in the Northeast and a significant cluster work in the Five Colleges of western Massachusetts.

Organizing Committee

Minna Sara Barrett (member of the original SftP)
Ph.D, Distinguished Service Professor, The State University of New York
Department of Psychology, SUNY College at Old Westbury

Jonathan Beckwith (member of the original SftP)
American Cancer Society Research Professor, Department of Microbiology and Immunobiology,
Harvard Medical School

Alan Goodman (active STS scholar)
Professor of Biological Sciences, Hampshire College

Elke Heckner (active STS scholar)
Visiting Scholar, Center for Science, Technology, Medicine, and Society, UC Berkeley

Melanie McCalmont
Data Journalist and Geographer
UW-Madison M.Sci. Geography; UW-Madison M.Sci. Life Sciences Communication
Owner, Synchronous Publications (science and academic websites)

Steve Nadel (member of the original SftP)

Donna Riley (active STS scholar)
Associate Professor, Picker Engineering Program, Smith College
Member, Steering Committee for the Five College Feminist Science and Technology Studies
Initiative

Sigrid Schmalzer (active STS scholar)

Associate Professor, History Department, UMass Amherst
Acting Assoc. Director, Social Thought & Political Economy Program, UMass Amherst

Florence Sullivan (active STS scholar)
Associate Professor, School of Education, UMass Amherst

Abha Sur (member of the original SftP and active STS scholar)
Lecturer, Women's and Gender Studies, MIT
Research associate, Program in Science, Technology, and Society, MIT

Vinton Thompson (member of the original SftP)
President, Metropolitan College of New York

Jennifer Tucker (active STS scholar)
Associate Professor of History and Interim Director, Allbritton Center for the Study of Public Life, Wesleyan University
Associate Professor of Science in Society, Wesleyan University
Chair, Feminist, Gender and Sexuality Studies, Wesleyan University

W. Katherine Yih (member of the original SftP)
Lecturer, Department of Population Medicine, Harvard Medical School

Other Participants

Since space is limited, we will not provide information on all 65 members of the conference organizing list-serv and website. Below we list those who have been most active in planning thus far and/or who hold key academic posts and are thereby well positioned to secure further institutional support.

Arlene Ash
Professor and Chief, Division of Biostatistics and Health Services Research, Department of Quantitative Health Sciences, UMass Medical School
Director of the Biostatistics, Epidemiology & Research Design (BERD) Component of the UMass Center for Clinical and Translational Science Award

Kiran Asher
Associate Professor of International Development and Social Change, Department of International Development, Community, and Environment, Clark University

Joseph D. Bowman
Engineering and Physical Hazards Branch, National Institute for Occupational Safety and Health (CDC/NIOSH)

Herbert Fox
Senior Adjunct Professor of Physics and Applied Physics, UMass Lowell

Henry Haslach
Associate Research Professor, Department of Mechanical Engineering, University of Maryland
Jonathan King

Professor, Department of Biology, Director of Biomedical Electron Microscopy Lab, MIT

Robert V. Lange
Physics Professor Emeritus and Adjunct Professor, Heller School, Brandeis University
President, International Collaborative for Science, Education, and the Environment, Inc.

Richard Lewontin
Professor of Biology Emeritus, Harvard University
Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology, Emeritus,
Harvard University

Sheldon Krimsky
Lenore Stern Professor of Humanities & Social Sciences
Adjunct Professor, Department of Public Health and Community Medicine
Tufts University

John Lamperti
Professor of Mathematics, Emeritus
Dartmouth College

Franklin E. Mirer, PhD, CIH
Professor, Environmental and Occupational Health Sciences, CUNY School of Public Health at
Hunter College

Robert M. Park
Health Research Scientist, National Institute for Occupational Safety and Health (NIOSH)
Education and Information Division
Risk Evaluation Branch

Larry Romsted
Professor of Chemistry, Department of Chemistry and Chemical Biology, Wright-Rieman
Laboratories, Rutgers, The State University of New Jersey

Scott Schneider, MS, CIH
Director of Occupational Health and Safety, Laborers' Health and Safety Fund of North America

Robert M. Shapiro
Senior Vice President: Research, OpenText Corporation

Banu Subramaniam
Associate Professor, Women, Gender, Sexuality Studies, UMass Amherst

Susan Taffler
Supervising Editor, Science Department, Prentice Hall (retired)

Lorne Taichman MD, PhD
Professor Emeritus, Health Science Center, Stony Brook University
Director of Science and Technology, Windham Venture Partners