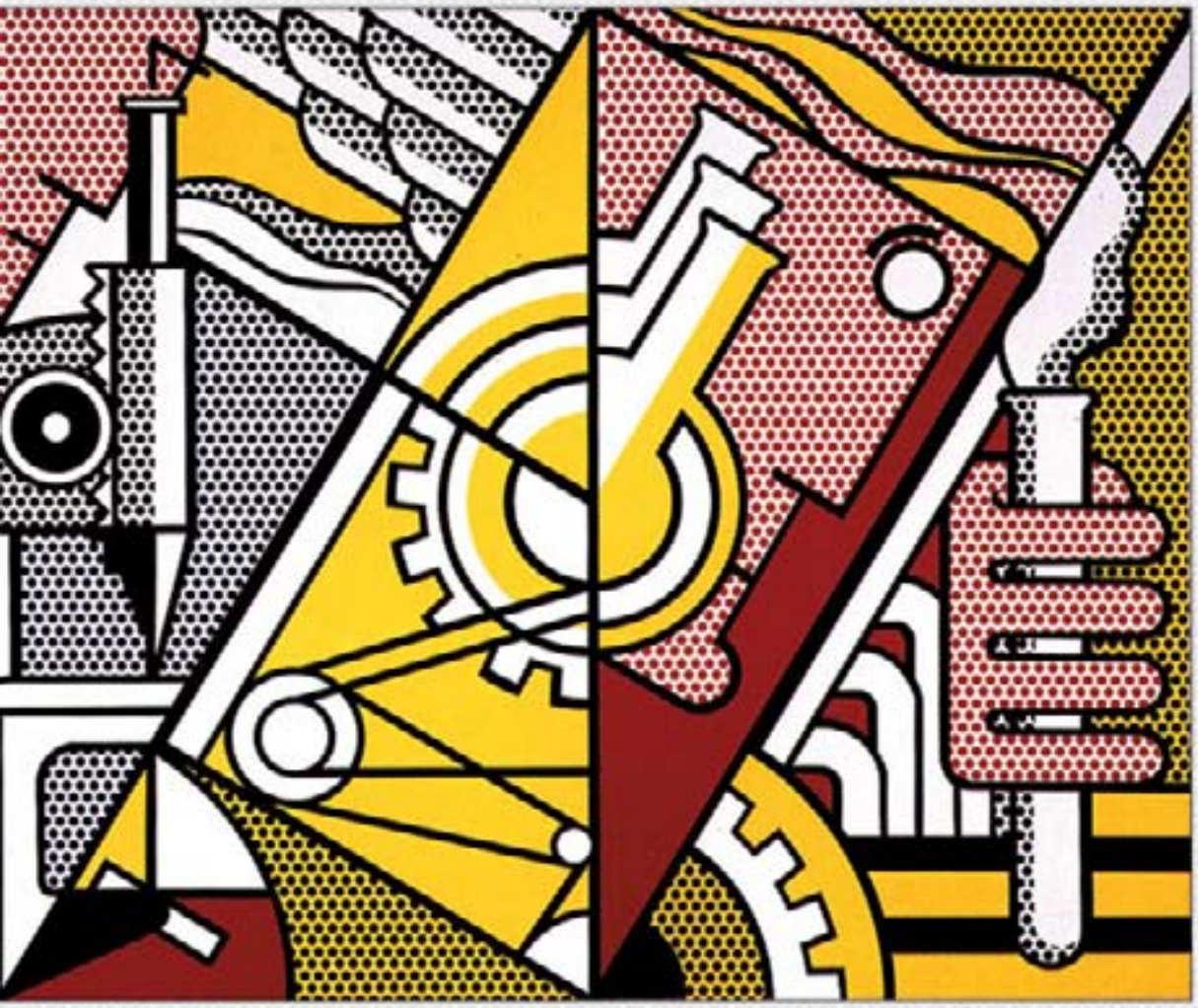

Social Movements, American Scientists, and the Politics of the Military, 1945–1975

Disrupting Science

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social community of natural philosophers and of valid facts about nature. SftP's actions and claims, from their attacks on the moral credibility of individual scientists, to their rejection of the idea that scientists alone were the proper witnesses and judges, echoed the challenges that Hobbes had posed.[40] To the extent that the rules for participating in such public witnessing are derationalized, the notion of collective agreement through witnessing is weakened.

Refusing to participate in acts of ritual solidarity denies acceptance of the values of the community. For groups that depend on conformity, rituals are even more important, thus making refusal a more significant act of deviance. SftP's activities at the AAAS meetings were akin to hurling the bread and wine to the floor during Communion in a Catholic Church in order to protest the treatment of homosexuals. Not only are these acts condemnations of policy, they are affronts to the practices that reproduce the organization. At an organizational level, activists were playing out the heresy that comes from orthodoxy, real or perceived.

The disruptions of the AAAS meetings did not precipitate a crisis in science in and of themselves, nor were they the main cause of the weakening of scientists' capacity to speak as neutral experts. But they did rattle the easy, civil, and gentlemanly structures that made it possible to see scientists as one-dimensional, cognitive, rational beings rather than complex moral individuals. SftP's use of unconventional tactics did not end with the AAAS meetings. They also drew attention to prominent scientists' ties to the Jason Program of the Institute for Defense Analyses (IDA). Unlike the pacifists, whose plan of action would require all scientists to renounce military funding, SftP activists saw their targets as representatives of a particular kind of relationship with the military. By insisting on a public accounting of Jason scientists' moral choices, SftP hoped both to draw attention to the military-science relationship and to raise the costs for those who wished to accept funding from the military. In the exchanges between the radicals and their mainly liberal targets, the very different visions of how each group understood the role of the individual scientist, how ideas were related to political systems, and what features of scientific investigation each sought to protect are revealed.

The Radical Challenge to Jason Scientists

The Jason Program was created in 1958 to streamline weapons development by offering scientists the opportunity to explore basic and applied physics and engineering problems of a military nature. To attract the very best scientists in the nation, the program offered participants generous salaries and nearly unlimited funds, the prestige of working on problems of national importance in conjunction with the nation's military leaders,

and summer workshops in vacation areas such as Woods Hole, Massachusetts. Salaries and grants went directly to individual scientists rather than to universities, turning them into private contractors who carried out their Jason work separately from their university-based work. Thus, Jason scientists were essentially private contractors to the IDA, which was itself a contractor to the Department of Defense.

Before 1967, few people outside the scientific community knew much about the Jason Program. That changed when student and antiwar activists, largely at the instigation of Students for a Democratic Society (SDS), turned their attention to examining how their own universities were involved in the war in Vietnam. In an effort that overlapped with the campaign to prevent Dow Chemical from recruiting on campus, activists called on their institutions to sever all ties to the IDA. As I noted in earlier chapters, because Jason recruited elite scientists, it is not surprising that anti-IDA demonstrations and actions took place at elite science institutions, including Cal Tech, the University of Chicago, Columbia, Berkeley, Stanford, and Princeton.[41]

To publicize their demands, most early anti-IDA activists used methods that included petitions, demonstrations, letters to administrators, and the distribution of documentation about the IDA's presence on campus. Anti-IDA activists were especially critical of the program's secrecy requirements, arguing that the interests of neither the students nor of other scientists were served, since IDA research was not publicly disseminated knowledge. Their other complaint was by now a familiar one: that participants and their defenders did not take into account the kind of knowledge the IDA produced and the purposes for which it was used. This, activists charged, was contra the spirit of science.[42]

SftP's campaign against the Jason scientists began in 1971, following the *New York Times*' publication of what became known as the "Pentagon Papers." These documents, originally titled "The History of U.S. Decision-Making Process in Vietnam," were commissioned by Secretary of Defense Robert McNamara.[43] They showed what the historian John Morton Blum calls "a depressing record of mistaken assumptions, prevarications, and flawed judgments" that characterized governmental decisions about U.S. involvement in Vietnam.[44]

Included in the *Pentagon Papers* was evidence of forty-seven Jason scientists' participation in the development of what was called "the electronic fence." In 1966, having condemned the Johnson administration's plans for more saturation bombing in Vietnam, Jason scientists proposed that the area stretching from the demilitarized zone between North and South Vietnam into the Laotian panhandle be covered with new kinds of weapons that could be set off by movement, heat, or light. Among them were new and more deadly land mines, acoustic sensors, and nail bombs.[45] The weapons were designed for what the Jason scientists envisioned as a

long-term, open-ended war of "cat and mouse" rather than conventional, battle-based warfare.[46] The Jason scientists hoped that this system would help cut the supply lines between North and South Vietnam, thereby ending the war more quickly.

In early 1972, SftP published a long booklet titled *Science against the People*. It documented the history of the Jason Program, and contained descriptions of Jason scientists' views about their work, gleaned from "encounters" with them. These "encounters" took the form of scheduled interviews and letters. SftP's descriptions of the Jason scientists' views were interspersed with comments about what was "generally believed" about these scientists. The descriptions do not present a flattering portrait, in most cases making them appear as yes-men concerned with their own power rather than self-aware and thoughtful people. One key theme that SftP emphasized was that the Jason scientists were not politically disinterested, but allowed their political views to shape their decisions about weapons. SftP asserted that Jason scientists were often part of research groups that included political scientists, government officials, and other "interested" parties. For example, of one scientist they wrote: "He admits that politics was not a small and incidental part of their considerations."[47] Another, they argued, had stated that "the human element—the personal relations between the adviser and advisee [the Jason scientist and the government]—is very important to the success of the advising process; yet he continually stressed that the advising was strictly objective, non-political, and related only to technical evaluations."[48] In a description of a professor of physics at Berkeley, SftP wrote, "At a faculty meeting during the time of the Cambodian invasion, in 1970, [the professor] was heard to comment, 'Why is everyone getting so upset about a little war?' "[49] In response to a later letter to this scientist asking him to comment on the notes that the interviewer had taken before the material was published, the scientist responded, "This report contains several misrepresentations and/or quotations out of context. More significantly, it violates the conditions under which I agreed to meet with SftP, which were that I would listen and you people would talk."[50]

In a separate chapter titled "Why They Do It," SftP articulated, and presented its refutations of, what it thought were the main motivations of Jason scientists: (1) Jason's work must be harmless because it is so often ignored; (2) liberal scientists' advice counterbalances that of the government; (3) Jason provides accurate information that is not available elsewhere; (4) Jason scientists do not fully realize the consequences of their work; and (5) they are seduced by the "thrill of making history."[51]

SftP's activities were paralleled in Europe in the summers of 1971 and 1972 by student activists in Italy and France. These campaigns were led by younger scientists who, like their American counterparts, wanted the

United States to withdraw from Vietnam. Jason scientists at the Varenna, Italy, summer school on the history of physics and the Trieste (Italy) International Physics Symposium were prevented from speaking by disruptive activists who heckled and demanded that they speak about their involvement in Jason rather than about technical issues. In June 1972, the physicist Murray Gell-Mann was chased from the Collège de France,[52] and the University of California–Berkeley physicist Charles Townes was prevented from speaking at two engagements in Rome. French activists created a poster that simply said "War Scientists" and listed the names of thirty-nine members of Jason. The poster was circulated by French, Italian, and American radical scientists, including SftP. Among those listed was the chair of the Union of Concerned Scientists, Henry Kendall.[53]

Jason Scientists Respond to Critics

Jason scientists explained their participation in the program in three ways. First, they asserted that their motives were moral because they were acting as public servants who hoped to give the government more sound advice than it otherwise would have received from scientists on staff in the government. Second, some argued that SftP's attempt to pressure them to end their research was antithetical to free speech and academic freedom. Finally, some argued that they delivered facts, not policies, to the government and therefore they were not responsible for the uses made of their ideas. Their responses reveal that, like CNI members, they believed that individual choice to carry out public duty should drive scientists' engagement in public political issues and that scientists could and should act as conduits for information dissemination. This stood in stark contrast to the model of scientist as servant of the people that SftP put forth and also contradicted SftP's claim that it was not possible to provide "apolitical advice."

Altruistic Motivations

For many of the Jason scientists, the criticisms that SftP and European activists made were based on a failure to understand that participation in the Jason Program was a form of public service. Providing advice to the government would help avoid bad political decision making, analogous, they argued, to the kind of technical advice that Manhattan Project scientists had given in the spirit of ending the war. By pruning out bad projects based on bad science, one helped the government. As Sidney Drell argued, "The [Hans] Bethes, the [Wolfgang] Panofskys, [Eugene] Wigners, [Edward] Tellers, who got drawn into the war . . . came in and they had a