



# The Impossible Dream: Scientism as Strategy against Distrust of Social Science at the U.S. National Science Foundation, 1945–1980

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## Abstract

Distrust of the social sciences has deep roots in American politics, science, and culture. This article examines how distrust became a serious issue in the nuclear age by focusing on the U.S. National Science Foundation's involvement with the social sciences from 1945 to 1980. I propose, first, that in this context distrust of NSF's social science activities came in two forms, which rested on two different sources of doubt. Epistemological Distrust stemmed from doubts about the scientific status of the social sciences. Social Distrust involved worries about the social relevance and policy uses of the social sciences. Second, I propose that efforts to address and contain these two types of distrust played a major role in NSF's elaboration of a view of the social sciences and corresponding strategy for funding them that I will refer to as Scientism, which assumed a unified scientific framework that took an idealized conception of the natural sciences as the gold standard.

**Keywords:** epistemological distrust, National Science Foundation, scientism, social distrust, social science

## Introduction<sup>†</sup>

I asked an able scientist yesterday if he would define social science. I had been worrying about that. He said in his definition, 'In the first place I

would not call it science. What is commonly called social science is one individual or group of individuals telling another group how they should live'. (U.S. Senator J. William Fulbright, 1946)<sup>2</sup>

Senator Fulbright's remark reveals just the tip of the iceberg when it comes to long-standing distrust of the social sciences. In American politics, science and culture such distrust has deep roots and has been a central matter of concern for funding bodies. Worries about the intellectual foundations, social implications and policy uses of the social sciences were already crucial sources of distrust during the interwar period, when the Rockefeller and Carnegie philanthropies emerged as major sources of social science funding.<sup>3</sup> Following World War II, distrust acquired additional significance in the context of debates, policies and practices that shaped federal funding. Those developments, in turn, had a powerful influence on the evolution of the social science enterprise, disciplines and particular fields of research, on the scientific status and cultural authority of the social sciences, and on their domestic and foreign policy relevance.<sup>4</sup>

This essay examines how distrust became a serious issue at the level of federal funding in the nuclear age by focusing on the U.S. National Science Foundation's involvement with the social sciences from 1945 to 1980. The stakes associated with NSF funding were high. For social scientists themselves, they included gaining access to an important new source of public support, enhancing their scientific status by being part of an agency dedicated to the support of first-class science, cultivating stronger relationships with powerful natural scientists and obtaining political support from Congress and the White House. For NSF leaders, the stakes included securing the agency's reputation as a patron of first-class science while avoiding excessive political scrutiny and control that could result from its support of controversial social research. Politicians were ultimately responsible for establishing and revising NSF's mission, overseeing its activities, and determining its annual budget. For them the stakes revolved around the costs and benefits of supporting, or not supporting, NSF's social science activities.

My analysis advances two main claims. First, distrust of NSF's social science activities came in two forms, which rested on two different sources of doubt. Epistemological distrust stemmed from doubts about the scientific status of the social sciences. Perhaps the research and resulting knowledge in disciplines such as political science were not really scientific. Or perhaps that work could be considered scientific

but was still very different from work in the natural sciences, thus raising doubts about the wisdom of placing the social sciences in an agency predominantly or even exclusively focused on the former. In the period of interest here, the challenge of finding appropriate criteria for distinguishing scientific work from non-scientific work including such things as pseudo-science and stamp collecting (i.e., mindless empiricism) attracted considerable attention from scientific leaders in the natural sciences and social sciences as well as from historians, philosophers and sociologists of science. In the case of the NSF, politicians and other interested parties weighed in with their opinions as well. In this context, epistemological distrust about the social sciences centred on a few key and long-standing concerns: that there are serious difficulties in achieving objective and hence unbiased knowledge of human nature and social affairs; that close involvement with social issues can undermine the objectivity of social research; and that the social sciences do not have any laws comparable to those found in the physical sciences.<sup>5</sup>

Social distrust, the other main form of distrust considered in this essay, rested on doubts about the practical relevance and policy uses of the social sciences. This type of distrust itself came in two forms. First, perhaps research in this area could not be relied upon to produce knowledge that was socially significant. This worry resonated with the common notion that work undertaken by scholars often has a narrow ‘academic’ scope and thus the results of such work have little if any practical value. Or, second, perhaps research in this area might be socially significant but not in desirable ways. Regarding public funding of social science through the NSF, this worry came mainly from conservative circles, where the social sciences were often associated with misguided leftist agendas.<sup>6</sup> My analysis will follow these two forms of distrust – epistemological and social – over time and consider how they sometimes fed upon one another.

The second claim advanced in this paper is that the effort to address and contain these two forms of distrust played a major role in the elaboration of a view of social science and a corresponding strategy for NSF social science funding that I will refer to as ‘scientism’. By this, I mean that those responsible for crafting, implementing and defending NSF’s social science efforts placed this branch of inquiry within a unified scientific framework that took an idealized conception of the natural sciences as the gold standard. This strategy and its instantiation in specific policies and practices at the agency rested, among other things, on ideas about the distinction between basic and applied research, a

commitment to value-neutral inquiry, a preference for certain methodologies associated with scientific rigor and involving, for example, quantitative analysis, hypothesis testing and experimentation, and the separation of social science from ideology, philosophy and policy.

In the U.S. context, the general idea that the social sciences should seek to emulate the supposedly more advanced natural sciences was far from new. But serious criticism of this idea had also arisen in the recent past, especially during the 1930s, while controversy continued into the years immediately following World War II. Some of the nation's best-known scholars, including the sociologist Robert Lynd, the historian Charles Beard, the philosopher John Dewey and the educational leader Robert Hutchins, were all critical, in particular, of the notion that social scientists should aspire to produce value-neutral research, because it seemed that such work would be ineffective in providing guidance on the great moral and political questions of the day.<sup>7</sup> In addition, during the late 1940s and continuing into the earlier 1950s, debate over this issue unfolded inside the Rockefeller Foundation.<sup>8</sup> Thus it was by no means inevitable that a scientific view of social science would, during these same years, be taken up at the NSF.

So far I have stated the main points and categories of analysis in this article at a general level. Doing so highlights the issues of epistemological distrust, social distrust and scientism in a way that can be useful to other scholars studying funding bodies and trust in science at other times and places, where details of the NSF story may have little importance.<sup>9</sup> However, my own analysis is based on a careful reconstruction of the developments in American political culture, partisan politics and science policy that made distrust such a prominent issue for federal funding for the social sciences in the nuclear age and that made scientism the strategy of choice at the NSF.

## **Epistemological and Social Distrust in the Nuclear Age**

Between 1945 and 1950 a string of legislative proposals for a new federal science agency, the National Science Foundation, generated extensive political and scholarly debate in the United States.<sup>10</sup> Controversy focused on a number of issues, including the process for selecting the agency's director; the agency's responsiveness to the Congress and the President; the type of research to be supported by the agency; and the extent of

public access to the results of agency-sponsored studies. The question of whether the social sciences should be included and, if so, how, provoked considerable debate as well, while also revealing deep pockets of distrust regarding these sciences.<sup>11</sup> Before turning directly to that debate, however, a few observations about the wider historical context will be useful for setting the stage and establishing the debate's broad importance at the time.

Toward the end of World War II and continuing into the post-1945 era, dramatic advances in science-based technologies with military applications, including radar, computers and of course atomic weapons, acquired legendary status in American society. The ensuing Cold War battle for global supremacy between the Soviet Union and United States ensured that the sciences, and especially the physical sciences, remained in the national spotlight, as their work was inextricably linked to the nuclear arms race, inter-continental ballistic missiles, Sputnik and atomic spying. In this context, the American scientific enterprise underwent enormous growth and attracted unprecedented levels of federal funding.<sup>12</sup>

During these same years the broad pattern of scientific growth and increased federal funding, together with new opportunities and ideological pressures associated with the hot and cold wars, had considerable importance for the social sciences as well. In the fight against the Axis Powers, for example, anthropologists provided analysis of enemy national characters; psychologists and other communication experts worked on Allied propaganda projects; and economists contributed to the logistical management of wartime operations. Later, the onset and intensification of the Cold War gave social scientists further opportunities to carry out intellectual pursuits that promised valuable practical payoffs, including the construction of an American-friendly, anti-Marxist model of development for so-called underdeveloped or traditional societies.<sup>13</sup>

At the same time, however, sociologists, political scientists and the like came under frequent attack from certain quarters, especially conservative political and intellectual circles. Extensive criticism from this direction first focused on the social sciences' deep involvement in national planning efforts associated with the New Deal during the 1930s as well as the close ties between the Roosevelt administration and the social sciences during World War II.<sup>14</sup> During the post-war Red Scare and the rise of McCarthyism in the early 1950s, conservative voices

persisted, charging that numerous social scientists sought to undermine the American way of life through the promotion of misguided ideas and crackpot plans for social, economic and political change.<sup>15</sup> Meanwhile, a number of prominent leaders from the physical, engineering and medical sciences expressed serious doubts about the social sciences as well. At one point Edward Teller, who played a crucial role in the nation's H- Bomb project, even proposed that they were no more scientific than Christian Science.<sup>16</sup>

The debate at the dawn of the nuclear age about whether the social sciences belonged in the proposed NSF must be seen in the context of the landmark developments and broader controversy in American politics, science and culture sketched above. In fact, soon after the NSF science policy debate commenced in earnest, it became clear that the social sciences faced strong distrust about their epistemological foundations from the scientific community. During legislative hearings on competing NSF proposals held in the fall of 1945, the chemist Bradley Dewey argued that the social sciences were 'dissimilar' to the natural sciences. Furthermore, he asserted that 'just as hair and butter should be kept apart', the former should not be included with the latter in the proposed agency. The main professional society in his discipline, the American Chemical Society, also opposed inclusion of the social sciences, on the grounds that 'the methods of approach to the study of its problems, the complete lack of any fundamental laws, [and] the necessity of analyzing vast bodies of facts, often unrelated, place this subject in the field of the humanities'. Other prominent scientists put forth similar points, with the Nobel Laureate physicist I. I. Rabi claiming that whereas natural scientists arrived at 'quite objective' results through controlled experimentation, the work of social scientists was often 'controversial' because they had great trouble proving that their findings were sound.<sup>17</sup>

The scientists from the physical science, engineering and medical communities who opposed the social sciences typically had conservative inclinations, which inspired social distrust alongside epistemological distrust. They found the contributions of sociologists, economists and neighbouring scholars to 'governmental planning' especially troubling. This group of critics included Vannevar Bush, the author of *Science-The Endless Frontier* (1945), the landmark science policy report that shaped the terms of discussion in the post-war NSF debate and influenced federal science policy in the post-war era more broadly. The medical

scientist Henry Simms conveyed the conservative's worry with flare, as he told Congress that including the social sciences in the NSF might encourage 'the promotion of crackpot schemes for altering the form of government'.<sup>18</sup>

As the NSF debate continued into 1946, natural scientists were joined in their criticisms by conservative politicians, among them Ohio Republican Representative Clarence Brown. A persistent opponent of big government and communism, Brown observed that if Congressmen believed that the proposed agency would include 'a lot of short-haired women and long-haired men messing into everybody's personal affairs and lives ... you [the natural scientists] are not going to get your legislation'.<sup>19</sup> Over in the Senate, Connecticut Republican Thomas Hart added that 'no agreement has been reached with reference to what social science really means. It may include philosophy, anthropology, all the racial questions, all kinds of economics, including political economics, literature, perhaps religion, and various kinds of ideology'.<sup>20</sup>

Hart also put forth an amendment that would have effectively eliminated the social sciences in the legislation under consideration. After a brief discussion, his amendment was approved.<sup>21</sup> As it turned out, that vote was not the final word because President Truman subsequently vetoed the legislative bill (with the social sciences excluded) that Congress had sent him. Nevertheless, the power of conservative opposition to the social sciences in U.S. scientific and political circles, founded on particular sources of epistemological and social distrust, was formidable.

## **The Case for Inclusion and the Unity of the Sciences**

In the meantime, the Social Science Research Council (SSRC) took the lead in developing a case for inclusion. Founded in 1923, the Council was a private, non-profit scholarly organization with representatives from the major professional associations for anthropology, economics, history, political science, psychology, sociology and statistics.<sup>22</sup> After receiving an invitation to present its views to Congress in 1945, the Council sent an interdisciplinary group of prominent scholars to testify, including the economists Wesley Mitchell and Edwin Nourse, the psychologist Robert Yerkes, the sociologist William Ogburn, the political scientist John Gaus and the anthropologist John Cooper.

Whereas the critics claimed there were crucial differences between the social and natural sciences, these scholars made a case for trusting and including the social sciences based on what the economist Nourse called the ‘inherent unity of science’.<sup>23</sup> In support of this general notion, they told Congress that there was a high degree of scientific objectivity in modern social science. They said this work had a technical, value-neutral and non-ideological character. And they stated that the distinction between the social scientist and the social reformer, though in the past often blurry, was now well recognized.<sup>24</sup> The claims by these scholars, who supported the unity of the sciences in other settings outside of the political arena as well, promised to allay the epistemological and social distrust expressed by critics during the NSF debate.<sup>25</sup>

Notwithstanding those efforts, conservative scientists and politicians had undermined the case for giving the new agency a mandate to support the social sciences. Lackluster support from liberal legislators as well as from President Truman’s liberal administration meant as well that conservatives never faced strong resistance.<sup>26</sup> In fact, after SSRC scholars testified in the fall of 1945, social scientists were never invited to testify as a group again, even though the NSF debate itself dragged on for four more years. Sporadic efforts to bring the social sciences back into the picture were always led by liberal politicians and were always unsuccessful, for reasons suggested by Senator Fulbright’s 1948 remark about the dismal view of social science held by the scientist he had asked. Yet, following passage of the 1950 NSF Act, the question of whether the social sciences could be trusted in the right ways to merit inclusion in the new agency would arise again.

## **Staking Out the Hard-Core at the Young NSF**

The agency’s establishment was a major landmark in American science and federal science policy. The 1950 enabling legislation created a governing structure consisting of a full-time director and a 24-member board (the National Science Board or NSB). All of the members were to be appointed by the President, upon the advice and consent of the Senate. In its early years the agency carried out its responsibility for promoting science in the national interest through various activities, including grants for scientific research, fellowships for advanced scientific

training and support for pre-collegiate scientific education. Programs for awarding research grants were located in each of the agency's two main research divisions, one for the mathematical, physical and engineering sciences, and the other for the biological and medical sciences. Also important in defining its priorities and activities, the NSF had a special mandate to support basic science of the highest quality, which meant research oriented towards advancing scientific knowledge for its own sake – though accompanied by the expectation that such advances would pave the way for practical applications in various domains.<sup>27</sup>

Based on intentionally vague language in its enabling legislation that mentioned support for 'other sciences', the matter of the social sciences soon came up for consideration.<sup>28</sup> Thus in 1953 the agency hired the sociologist Harry Alpert to carry out a background study and provide policy recommendations in this area. Alpert's educational and scholarly work prepared him reasonably well for his new position. Graduate studies in sociology at Columbia University during the 1930s inspired a deep and lasting commitment to the profession and to the social sciences more generally. Those studies also culminated in Alpert's Ph.D. dissertation on the French scholar Emile Durkheim, which provided the basis for his book on the same subject: *Emile Durkheim and His Sociology* (1939). Here, and in many other publications before, during and after his years at the NSF, Alpert pursued a passionate interest in social science epistemology and methodology, the social role of the social scientist and the interrelationships between the natural sciences and the social sciences. As for academic employment, he held a few positions, including an associate professorship of sociology at Queen's College in New York, where he also served as chairman for the department of anthropology and sociology.<sup>29</sup>

Before arriving at the NSF in 1953, Alpert had acquired valuable first-hand knowledge about the place of the social sciences in government as well. During and after World War II he held a series of federal posts: in the Office of War Information, in the Office of Price Administration and in the Bureau of the Budget. He also worked as a consultant for the U.S. Air Force's Research and Development Board. In these positions, Alpert learned how political pressures, partisan concerns and the inner workings of particular agencies exerted a powerful impact on the level and character of government support for and use of the social sciences.<sup>30</sup>

Various factors made Alpert's task *vis a vis* NSF's engagement with the social sciences a sensitive one, beginning with their problematic status in the post-war NSF debate along with the underlying sources of epistemological and social distrust. In addition, following broader developments in U.S. federal science policy in the late 1940s and 1950s, the new agency concentrated predominantly on the natural sciences, an orientation reinforced by the presence of many natural scientists in top leadership positions, starting with the physicist Alan Waterman who served as NSF's first director from 1951 to 1963. Furthermore, though the early legislative proposals had envisioned an agency that would be the centrepiece of the post-war U.S. federal science system, the new agency was, in fact, rather small and suffered from paltry funding. This made the question of whether to allocate any funds to the social sciences even more dicey. Last but not least, the conservative political culture during the McCarthy era inflamed worries about social science involvement with such things as socialism, world government, economic planning, social engineering and racial integration.<sup>31</sup>

The NSF policy recommendations crafted by Alpert posited a social research continuum, ranging from 'softer' forms of inquiry to 'harder' forms, as the basis for a policy framework for funding social science that would keep the main sources of distrust at bay. Through extensive consultation (with NSB members, private foundation leaders, personnel from professional social science associations and research organizations, and other scholars) Alpert understood the need to keep the social sciences and the young agency safe from political attack, at least as much as possible. Accordingly, he recommended NSF support for 'hard-core' social research exclusively.<sup>32</sup> He also proposed that the agency begin with an experimental program for 'convergent' research, that is, social research that converged or overlapped with the natural sciences. The agency would thus confine its interest to 'basic studies' that met 'the highest standards of scientific inquiry and ... the basic conditions of objectivity, verifiability, and generality'.<sup>33</sup>

In these ways, Alpert, acting strategically, developed a policy framework for supporting the social sciences in a scientific vein. Focusing on their hard-core wing promised to strengthen their epistemological credentials in the natural science-oriented NSF. That focus also promised to keep the agency's social science activities free from involvement with social agendas and social reform efforts, which, otherwise, seemed

likely to provoke damning social distrust in conservative circles, such as was expressed a few years later by Kevin McCann. A NSB member and close friend of Republican President Eisenhower, McCann told his fellow board members that ‘except for a few extremely limited areas’, the social sciences were ‘worse than anything released by Pandora’.<sup>34</sup> As this remark reveals, the carefully circumscribed policy framework put forth by Alpert couldn’t eliminate distrust of these sciences altogether; but at least that framework offered a position for defending their inclusion at the NSF based on adherence to the agency’s general outlook on scientific inquiry wherein the natural sciences were the widely acknowledged leaders.

After Alpert had provided a slate of recommendations that were accepted by his NSF superiors, he was put in charge of a new, ‘limited’ and ‘exploratory’ social science effort with two sub-divisional branches. One branch for anthropology and related sciences was located in the Division of Biological and Medical Sciences. It supported work in human ecology, anthropology, archaeology, psycholinguistics, demography and quantitative and experimental social psychology. A second branch for socio-physical sciences, placed in the Division of Mathematical, Physical and Engineering Sciences, funded studies in mathematical social science, economic geography, econometrics and also the history, philosophy and sociology of science.<sup>35</sup> Alpert emphasized that in evaluating research proposals, these convergent programs relied on ‘the same techniques and procedures as those employed in the evaluation of natural sciences proposals’.<sup>36</sup>

During the agency’s formative years, Alpert had thus crafted a cautious policy framework that promised to mitigate distrust of the social sciences inside and outside the agency. A more favourable environment for the social sciences would soon emerge amidst broader transformations in American politics, science and society.

## **Expansion within Restraints, from Sputnik to the Liberal 1960s**

Following the successful Soviet launch of Sputnik on 4 October 1957, the U.S. federal science establishment once again underwent dramatic expansion. The many highlights include the creation of the National

Aeronautics and Space Administration (NASA), the passage of the National Defense Education Act, the establishment of the President's Science Advisory Council and soaring levels of federal funding. In just a few short years from 1957 to 1961, federal Research and Development (R&D) funding doubled, while federal funding for basic science tripled. The NSF itself also grew in leaps and bounds, as its budget spiralled upwards from \$40 million in 1958 to \$500 million in 1968.<sup>37</sup>

Not only did these expansionary developments make increases in social science funding more likely, but the position of the social sciences in American society and government also became much stronger. With the end of the McCarthy Era, American political culture became more receptive to ideas and proposals from liberal thinkers and scholars, while the force of conservative attacks diminished. In addition, following the two-term Republican presidency of Dwight D. Eisenhower, the social sciences moved more confidently into the national spotlight due to their association with bold policy initiatives launched during the Democratic presidencies of John. F. Kennedy and Lyndon B. Johnson. On the domestic front, social scientists promoted the development of federal programs to tackle a wide array of problems, including juvenile delinquency, urban blight, racial conflict, poverty and unemployment. Social scientists also worked on the international front, to combat communist aggression, to undermine revolutionary movements around the world seen as inimical to American interests and ideals, and to promote U.S. friendly modernization programs in the under-developed world from Latin America to Southeast Asia.<sup>38</sup>

Meanwhile, back at the NSF the social sciences benefited from favourable developments as well, starting with a change in leadership. Following Alpert's departure from the NSF in the summer of 1958, the agency's social science efforts acquired increased importance under a new leader named Henry Riecken. After completing his Ph.D. at Harvard's Department of Social Relations in 1949, Riecken had stayed on as a lecturer in social psychology. He then obtained a more permanent academic post at the University of Minnesota's Laboratory for Social Relations, before moving to the NSF.<sup>39</sup>

Regarding his NSF position, Riecken later recalled that his own 'professional identification with experimental social psychology fitted well with the generally quantitative and empirical orientation of the NSF program'. The extent of that good fit is evident from many

other statements by Riecken about the nature and purposes of the social sciences. These sciences, he claimed, sought ‘to explain and/or predict and/or control both regularities and changes’ in the phenomena they studied, giving them ‘the same general epistemological character as ... the physical and biological sciences’. Riecken also drew a sharp distinction between the social sciences and other areas of inquiry that, until recently, they had been mixed up with. ‘The social and behavioral sciences’, had ‘become differentiated from ethical and moral philosophy’ not all that long ago. In fact, ‘only in the last two or three decades’ had ‘any substantial number of scholars’ begun to practice ‘social science rather than social opinionating’. The difference, in Riecken’s view, was profound, ‘at least as great as that between chemistry and alchemy’.<sup>40</sup>

NSF’s social science efforts enjoyed elevated status within the agency’s organizational hierarchy as well. First, the agency’s convergent programs were replaced by a unified social science Program, which had separate units for anthropology, economics and sociology, as well as one for history and philosophy of science. The agency then replaced that unified social science Program with a higher status social science Office. And in late 1960 the agency gave the social sciences a Social Science Division (SSD) of their own, which included the four disciplinary programs mentioned above.<sup>41</sup>

The division’s establishment marked a milestone, suggesting to at least some advocates of the social sciences that distrust concerning their scientific foundations could, at last, be laid to rest. As reported by a *New York Times* editorial, the social sciences had finally ‘received a long-sought recognition ... by being elevated to the status of the physical and biological sciences in the Government’s program of basic research’ at the NSF. Establishing a foothold in the agency known as a place where ‘Good Science Gets Funded’ conferred a welcome measure of scientific legitimacy on the social sciences. In an editorial published in *Science*, the psychologist Dael Wolfe claimed that NSF’s efforts would hasten the day when people would ‘no longer’ have ‘any doubts concerning the appropriateness of the word *science* in *social science*’.<sup>42</sup>

The social sciences also enjoyed increased funding. NSF’s social research budget went, when measured in constant 1965 dollars, from \$2.3 million in 1960 to \$10 million in 1965 to \$13.4 million in 1969. As a percentage of NSF’s total research budget, the social science’s share

also rose, from 3.2% in 1960 to 5.8% in 1965 and then a tad higher to 5.9% in 1969.<sup>43</sup>

Yet, all the while constraints reflecting underlying worries about the position of the social sciences at this natural science-oriented agency persisted. Though the social sciences' share of NSF's research budget rose to a highpoint of nearly 6% by the end of the 1960s, the natural sciences still received the lion's share at 94%. In addition, natural scientists remained dominant in leadership positions. When the physicist Alan Waterman retired in 1963, he had served as NSF director for a full dozen years. His replacement Leland Haworth was another physicist. In addition, social science representation on NSF's governing board remained minimal. In any given year just two or three individuals from the social sciences sat on the twenty-four-member board.<sup>44</sup>

Inside the agency a cautious atmosphere regarding the type of social science to be supported also persisted in the post-Sputnik years. Some people worried that the agency might be moving too quickly into dangerous waters. Under these conditions, NSF leaders continued to see scientism as a means of warding off trouble and, more positively, of building trust in the social sciences within the political and scientific communities. In these respects, the case of political science is revealing.

## **Finding the Science in Political Science**

Right from the beginning political science had 'problematic' written all over it at the NSF. During the mid-1950s the agency had determined that the discipline's subject matter, politics, was off limits, along with race, religion and sex.<sup>45</sup> And it wasn't until 1961 that the agency awarded its first grant to a political scientist, Duncan MacRae from the University of Chicago. That same year Henry Riecken explained, in DSS's annual report to the NSF director, that MacRae's project sought to 'develop a rigorous statement of the relationship between popular and legislative votes which is, in effect, a mathematical statement of the process of representation'. Though MacRae's project fit the agency's scientific outlook well, the agency still did not have an organizational unit dedicated to supporting political science. Thus, proposals from political scientists were handled on an ad hoc basis, with the review of MacRae's proposal carried out by NSF's sociology programme.<sup>46</sup>

An anonymous editorial in the *American Behavioral Scientist* painted the implications of the agency's cautious approach in bleak terms, claiming that only if a scholar wore 'the proper scientific garb', avoided 'political science and all controversial topics', and was 'properly respectful and grateful' might that scholar receive an invitation to an NSF cocktail party'. Despite the recent upgrades noted in the previous section, the author observed that the social sciences continued 'to resemble the "official Negroes" of NSF grants policy'.<sup>47</sup>

Furthermore, NSF leaders continued to insist on limiting support to hard-core studies in order to strengthen the social sciences' scientific credentials while also minimizing public scrutiny and damaging political attacks on agency-supported work in this area. In January 1963, NSF's social science divisional committee said that when it came to grant proposals in any 'sensitive' area, the agency would be wise to exercise 'considerable caution'. Compared to other social sciences, political science seemed to be 'more centrally concerned with questions of public policy and partisan controversy'. In this light, the strategy of invoking scientific criteria for public relations purposes remained compelling: 'the danger of a negative Congressional reaction is minimized by holding to a stringent definition of eligibility in terms of basic nature and scientific (rather than policy) orientation'.<sup>48</sup>

During those same years Evron Kirkpatrick from the American Political Science Association (APSA) mounted a campaign to have the NSF include his discipline in a more substantial manner. A firm Democrat and anti-Communist, Kirkpatrick has been described as 'something of a pooh-bah in political science ... an agile academic and political operative'.<sup>49</sup> After teaching political science at the University of Minnesota during the late 1930s and early 1940s, he worked as a government research and intelligence analyst. Starting in 1954 he served for nearly three decades as APSA's executive director. In September of 1963, Henry Riecken informed the new NSF director Leland Haworth that Kirkpatrick had begun to challenge NSF policies and practices four years earlier. Noting that the NSF had separate programs for sociology, anthropology, economics and also history and philosophy of science but not one for political science, Kirkpatrick complained that his discipline suffered from unfair treatment. He also found it unfair that political science was not included in NSF documents that identified specific social science areas as eligible for research grants and fellowships.<sup>50</sup>

Riecken had responded by noting that since much of the research done by political scientists was ‘applied, normative or policy-oriented’, it did not meet NSF’s scientific criteria and could not pass ‘the normal test of scientific investigation (objectivity, verifiability and generality)’. Riecken thus informed Kirkpatrick that the agency could not in good faith identify political science as a field eligible for support.<sup>51</sup>

But Riecken’s response hardly satisfied Kirkpatrick, who pointed out that the agency should not ‘discriminate in advance’ against his discipline.<sup>52</sup> In letters sent to congressmen whom he hoped to enlist in this cause, Kirkpatrick pointed out that in 1961 and 1962 the NSF had awarded only four political science grants, totalling \$115 trillion. By contrast, SSD’s four established programs had awarded 334 grants, totalling \$10.3 million. Political science therefore received only about 1% of all the grants and 1% of all the dollars. Political science had not even obtained ‘token integration’, reasoned Kirkpatrick.<sup>53</sup>

Though it took a while, the NSF eventually agreed to Kirkpatrick’s basic demands. Starting in 1965 political scientists became eligible for support through NSF’s post-doctoral and pre-doctoral fellowship programs. An announcement in the *American Behavioral Scientist* noted that the agency now seemed ‘prepared to consider political science on an equal status with the other social and behavioral sciences’.<sup>54</sup> In 1966 the agency established a political science program and appointed a political science advisory committee, equivalent to the committees in place for SSD’s other programs.

Yet, when the decade ended, the agency had still not yet hired a full-time director for the new program. Moreover, significant parts of the discipline remained ineligible for funding due to the agency’s stringent scientific criteria. Ohio State University scholar James A. Robinson explained that not all of his political science colleagues carried ‘the banner of science in the narrow sense’ required by the agency. Unfortunately, political theorists and philosophers, who addressed fundamental questions about the ‘good society’, the ‘just state’, and the ‘good life’, were excluded. Similarly, researchers who examined ‘goals and values in relation to scientific analysis of alternatives for achieving specified ends’ could not get funding.<sup>55</sup>

Indeed, such work remained ineligible for funding due to NSF’s scientific strategy, which was first established during the Alpert years, and which still seemed valuable as a means of containing distrust about the social sciences’ epistemological character and social relevance.

## Resurgence of Distrust in the 1970s: Senator Proxmire's Golden Fleece Awards

The years ahead ushered in changes in the national science policy arena that had worrisome implications for NSF's engagements with the social sciences. After rising dramatically from the 1940s through the mid-1960s, the federal R&D budget hit a wall. When adjusted for inflation, federal science spending during the mid-1970s was 20% below its highpoint in 1967. In addition, within the federal policy arena demands for political responsiveness and public accountability grew stronger. Starting in the late-1960s federal science policy became 'much more a creature of the political process', as Daniel Kevles has pointed out. 'Appointments to advisory and administrative posts' in federal science agencies now 'took into account' a candidate's political views to a greater extent than before.<sup>56</sup> Under these new conditions, political scrutiny of NSF's social science efforts was bound to increase.

Moreover, in American political culture the social sciences once again faced growing distrust. During the late 1960s and continuing into the 1970s, mounting criticism of the intellectual foundations, social relevance and policy uses of the social sciences came from a variety of directions. Left-leaning figures claimed that much of this work had an insidious conservative bias that supported such evils as patriarchy, racism, militarism and imperialism. Meanwhile, an increasingly powerful conservative movement charged the social sciences with supporting a different set of evils, from the erosion of American power and influence in international affairs to the spread of welfare dependency, the hobbling of capitalism, the decline of the traditional family and the subversion of Christian culture and morality. Meanwhile, across the political spectrum distrust in government and disillusionment with its social science experts deepened alongside a series of unnerving developments, including the agonizing war in Vietnam followed by the withdrawal of American troops without honour and without victory, the Watergate scandal capped by President Nixon's resignation, and economic woes associated with skyrocketing oil prices, gasoline shortages and stagflation.

In light of such changes, the standing of the social sciences at the NSF may seem exceptional, at least on first glance. The agency's social science research obligations, measured in constant 1975 dollars, actually increased from \$21.2 million in fiscal year 1970 to \$29.7 million

in fiscal year 1975, and then to \$33.6 in fiscal year 1979. Meanwhile, the social science share of NSF's scientific research budget remained steady throughout the 1970s at around 5.5%.<sup>57</sup> In addition, during the second half of the 1970s the agency was led not by a physicist or biologist but an accomplished experimental and mathematical psychologist named Richard Atkinson. However, as the years passed, social distrust of NSF's social science efforts rose, as seen in two controversies discussed here.

The first controversy involved the question of whether the American people could count on federally funded social research to produce results of significant social value. At the centre of this controversy was Wisconsin Senator William Proxmire, a member of Congress since 1957 who became well known for his boundless energy, his expertise in public administration and economic affairs, and his fiscal frugality. Starting in 1975 and continuing until his retirement in 1988, Proxmire drew public attention to 'the biggest, most ridiculous or most ironic example of Government spending or waste' by bestowing a Golden Fleece Award each month.<sup>58</sup> In that context, this title would most often have brought to mind the verb to fleece, that is, to charge an unreasonably high price for something – though the title could also refer to the Greek myth in which Jason is sent to search for the Golden Fleece.

Whenever Proxmire gave the NSF one of his awards, agency leaders had a serious public relations problem. Not only did these awards receive extensive media coverage. But ever since 1963 Proxmire had been a regular and active member of the Senate Appropriations Committee, and beginning in the early 1970s years he chaired the subcommittee concerned with independent agencies, positions which gave him considerable influence over NSF appropriations. Though Proxmire did not focus exclusively or even mainly on social science grants, he did find some of them problematic. One time he singled out a NSF research grant for a project on passionate love, which he declared to be 'an outrageous waste of the taxpayers' money'. Another large NSF grant for a quantitative study of linguistic change would 'leave most Philadelphians speechless', he quipped on another occasion.<sup>59</sup>

Proxmire elaborated on his concerns about wasteful science funding in a case involving the University of Michigan cultural anthropologist Sherry Ortner. An up-and-coming scholar at the time, Ortner had studied with Clifford Geertz at the University of Chicago and recently

published a book called *Sherpas Through Their Rituals* (1978). She went on to a sparkling career, including a 1992 MacArthur ‘genius’ award. What got Proxmire’s attention was NSF funding for Ortner’s project ‘Himalayan Mountaineering, Social Change, and the Evolution of Religion among the Sherpas of Nepal’. Her proposed research involved household surveys, interviews with village people and mountaineers, library and archival study of Buddhist monasteries, and examination of religious rituals. In September of 1979 Proxmire challenged the wisdom behind her NSF grant by giving it a Golden Fleece award.<sup>60</sup>

Proxmire said he did not intend to criticize Ortner’s research *per se* or its scientific legitimacy, though he did not speak highly of it. Nor did he believe in censorship. But at a time of ‘rampaging inflation’, he wondered out loud whether the government should spend taxpayer money ‘to send researchers halfway around the world’ to study what was ‘at best an esoteric question’. Support for such research would, he reasoned, be more appropriate if it came from ‘private funds’.<sup>61</sup> Even more problematic for the NSF, Proxmire used this case of irrelevant-sounding social research as an opportunity to challenge the agency’s peer-review system. As he saw it, grants of questionable worth like Ortner’s suggested that this system functioned through an old boys’ network, which insulated NSF funding decisions from legitimate public demands. Proxmire suggested that as a corrective, politicians, as the people’s elected representatives, needed to exercise their constitutional responsibility to oversee and thus to ‘criticize and challenge’ public spending on scientific grants awarded by agencies such as the NSF.<sup>62</sup>

## **Uproar over MACOS: Neutral Behavioural Science or Dangerous Social Engineering**

While Proxmire questioned the social relevance of certain social science projects regardless of their scientific credentials, a different strand of social distrust came from conservative quarters as seen in the controversy over ‘Man, A Course of Study’, an NSF-funded grade school curriculum project commonly known as MACOS. Critics here charged that MACOS was socially relevant but in detrimental and even dangerous ways, reminiscent of concerns raised by conservative critics in previous periods, i.e., Ohio Representative Clarence Brown’s comment

about short-haired women and long-haired men during the postwar NSF debate, and NSB member Kevin McCann's reference to Pandora's box in the 1950s.

MACOS emerged from a wave of reform in American science education following Sputnik's launch. In the late 1950s NSF support went first to educational reforms in the physical sciences, mathematics and biological sciences. Though the social sciences were lagging behind once again, they entered the picture following a recommendation in a 1962 report called 'Strengthening the Behavioral Sciences', issued by the President's Science Advisory Council. In that context Henry Riecken, NSF's social science leader at the time, advocated the development of a new grade school curriculum that considered human behaviour and society from a scientific perspective, in contrast to alternative educational approaches concerned with the transmission of cultural heritage, life adjustment and democratic citizenship.<sup>63</sup>

With an avowedly scientific outlook as the basis of NSF's interest and support, MACOS took shape. Many people contributed to its development, but the main figure was Harvard cognitive psychologist Jerome Bruner. He established the following three questions as central to MACOS's content: 'What is human about human beings? How did they get that way? And how can they be made more so?'<sup>64</sup> By 1970 MACOS course materials treated these questions in two parts. The first part examined the 'life cycles and behaviors of salmon, herring gulls, and baboons'. MACOS's second part focused directly on people, through the 'intensive study of man in society – as culture-building, ethical creatures, toolmakers and dreamers'. Case studies of particular cultures included a unit on the Netsilik Eskimos of the Canadian Arctic (Eskimos was the term used in MACOS course materials).<sup>65</sup>

By 1975 total NSF support, channelled through its Division of Pre-Collegiate Education in Science, amounted to more than \$7.3 million (about \$44 million in 2018 dollars). By that time, some 1700 grade schools in forty-seven of the nation's fifty states had purchased course materials. Though MACOS was only one of fifty-three pre-collegiate curriculum projects supported by the NSF since Sputnik, this ambitious initiative to bring modern social science into American schools was on a roll.<sup>66</sup>

But MACOS soon became the target of conservative critics who claimed that it was corrupting American school children. In the name of rescuing impressionable young minds from the dangers of liberalism, cultural relativism, atheistic science and amoral social engineering,

conservatives from school districts across the country expressed their worries. If Harvard's Jerome Bruner – as one of MACOS's main architects – could 'effectively change an individual's understanding of the world he lives in, he can also change society as a whole', warned a 1975 report prepared by Susan Marshner for the conservative Heritage Foundation. More generally, the Heritage report found it deeply troubling that 'in place of God', MACOS's creators were 'erecting' the false god of 'Humanism'.<sup>67</sup>

Conservative politicians joined the battle for young minds, with Republican Arizona Representative John Conlan leading the charge in Congress. A member of the House Science and Technology Committee, which was responsible for reviewing NSF's annual budget request, Conlan declared that MACOS was part of a 'dangerous plan for a federally backed takeover of American education'. NSF support for this project hurt the free market and thereby undermined the legitimate financial interests of private, commercial textbook publishers. Furthermore, MACOS course materials, with their plentiful references to 'adultery, cannibalism, killing female babies and old people, trial marriage and wife-swapping, violent murder and other abhorrent behavior', were offensive and damaging to children as well.<sup>68</sup>

NSF's social science-based curriculum project suffered fatal wounds. Between 1974 and 1975 sales of MACOS course materials fell precipitously, fully 70%. And the NSF never resumed funding for it. Harvey Averch, NSF assistant director for science education at the time, suggested that the explosive controversy had produced 'the worst political crisis in NSF history'.<sup>69</sup>

In the coming years, conservative figures continued to use MACOS as an object lesson, to remind Americans about the dangers of secular humanism, leftist social engineering, and federal control of education. At a gathering of conservatives in March of 1981, the nation's new president Ronald Reagan invoked MACOS, or at least its spirit, as he called for an end to 'the manipulation of schoolchildren by utopian planners'.<sup>70</sup> In February of 1981 – one month before Reagan's disparaging comment – the Republican White House sent Congress a proposed budget that included a massive 70% reduction in funding for NSF's social science programs. Because of NSF's special role in the nation's federal funding system for the social sciences, the proposed funding cut triggered a widespread sense of crisis in American social science during the early 1980s.<sup>71</sup>

## Conclusion

The story of the Reagan administration's assault on NSF's social science efforts and the ways in which long-standing challenges rooted in epistemological and social distrust informed that assault cannot be told here. But this article has shown that challenges rooted in these two different but often-related types of distrust had been present from the beginning.

This article's first section examined the character and impact of epistemological distrust and social distrust during NSF's legislative origins and early development, from 1945 to 1957. That section also considered the development of a scientific framework for social science funding, strategically crafted through a series of policy recommendations put forth by the sociologist Harry Alpert and designed to contain both types of distrust. The next section, covering the post-Sputnik years, revealed how this expansionary era in federal science funding together with the rising liberal tide during the Kennedy and Johnson administrations supported significant growth in NSF's social science activities. At the same time, however, the scientific strategy for managing lingering distrust persisted in ways that kept social science expansion within narrow limits, as seen in the story of NSF's cautious funding for political science and preference for projects in a behaviouralist vein. Turning to the increasingly conservative 1970s, the third and final section used the controversies over Proxmire's Golden Fleece Awards and MACOS to see how mounting criticisms of NSF's social science activities were fuelled by a resurgence of social distrust in its two main forms.

So, was the scientific strategy successful at the NSF? I haven't tried to answer this question by assessing the value of NSF-funded social research. Nor have I considered whether 'hard-core' social research was in fact fundamentally similar to natural science research at various levels, i.e., subject matter, methodology, knowledge claims and practical relevance. However, my analysis has shown that scientism was partially successful as a strategy for containing both epistemological and social distrust. From the early 1950s to the late 1970s, NSF's policy framework, which focused on supporting the so-called hard-core end of the social research continuum and which viewed the social sciences as part of a unified scientific enterprise led by the natural sciences,

played a key role in the agency's emergence as a major patron in this area.

But the scientific strategy also remained vulnerable to serious challenges. For one, this strategy came under attack from within the social sciences for being too narrow, as it rendered many well-established types of social research ineligible for funding due to excessively stringent scientific criteria. These included studies about the good society, the just state and the good life, as the political scientist James Robinson pointed out in 1967. During the 1970s the notion that scientific elites and institutions were unduly insulated from legitimate public demands for relevant research, including relevant social research, became widespread. The argument that NSF should fund such research because it met the agency's scientific criteria did not stop Proxmire's crusade against public funding for 'esoteric' research, which drew on one of the two main forms of social distrust considered in this article and is clear from his statements about NSF support for cultural anthropologist Sherry Ortner's research on the Sherpas. Drawing on the second form of social distrust considered here, the furor over MACOS rested on conservative suspicions that the social sciences, and the NSF supported social science-based curriculum specifically, remained a fount of social rot and moral perversion, rather than a source of value-neutral and non-partisan knowledge.

In a nation rife with suspicion of academic elites and scholars who proclaimed their expertise on sensitive social issues, in a political culture steeped in partisan conflict over issues central to social science research, and in a federal science system overwhelmingly oriented toward the natural sciences, the goal of situating the social sciences on the scientific high ground, and thereby warding off the two sources of distrust discussed here, was wildly ambitious. One might even conclude that it was an impossible dream – though one may choose to pursue such a dream anyway.

More generally, this study has shown that examining the course of patronage through funding bodies can serve as a litmus test for gaging changes in trust and distrust in science – and in different fields of science – over time. What societies and scientific communities decide to support reveals a lot about what types of science they consider to be trustworthy or untrustworthy on epistemological and social grounds.

## Notes

- 1 This article draws on material from my forthcoming book with MIT Press, tentatively titled ‘Social Science for What? Public Funding for the “Other Sciences” at the U.S. National Science Foundation since WWII.’ I am grateful to the Canadian Social Science and Humanities Research Council for supporting my work through a research grant, and to Marga Vicedo and Juan Ilerbaig for their careful reading of earlier versions of this article.
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- 4 See Mark Solovey, *Shaky Foundations: The Politics-Patronage-Social Science Nexus in Cold War America* (New Brunswick NJ, 2013), with references to many other studies.
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- 8 Lori Verstegen Ryan and William G. Scott, ‘Ethics and Organizational Reflection: The Rockefeller Foundation and Postwar “Moral Deficits,” 1942–1954,’ *Academy of Management Review* 20 (1995), 438–61.
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- 11 For a useful insider’s history of social science at the NSF, see Otto N. Larsen, *Milestones and Millstones: Social Science at the National Science Foundation, 1945–1991* (New Brunswick, NJ, 1992). On the problematic position of the social sciences in the postwar NSF debate, see Solovey, *Shaky Foundations*, Chapter 1; Mark Solovey, ‘Riding Natural Scientists’ Coattails onto the Endless Frontier: The SSRC and the Quest for Scientific Legitimacy,’ *Journal of the History for the Behavioral Sciences* 40 (2004), 393–424.
- 12 Daniel J. Kevles, *The Physicists: The History of a Scientific Community in Modern America* (New York, 1977); Audra J. Wolfe, *Competing with the Soviets: Science, Technology, and the State in Cold War America* (Baltimore MD, 2013).
- 13 Roger Backhouse and Philippe Fontaine eds, *The History of the Social Sciences since 1945* (New York, 2010); Mark Solovey and Hamilton Cravens eds, *Cold War Social Science: Knowledge Production, Liberal Democracy, and Human Nature* (New York, 2013).
- 14 Patrick D. Reagan, *Designing a New America: The Origins of New Deal Planning* (Amherst, 1999); Allan M. Winkler, *The Politics of Propaganda: The Office of War Information, 1942–1945* (New Haven, 1978).
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- 17 U.S. Congress, Senate, Committee on Military Affairs, Subcommittee on War Mobilization, *Hearings on Science Legislation (S. 1297 and Related Bills)*, hereafter, *1945 Senate Hearings*, 79th Cong., 1st sess. (Washington, DC: GPO, 1945), 818, 827, 999, 998.
- 18 England, *Patron for Pure Science*, 36; Simms in *1945 Senate Hearings*, 1170. For Bush’s views, see Nathan Reingold, ‘Vannevar Bush’s New Deal

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- 23 Nourse in *1945 Senate Hearings*, 757.
- 24 See Mitchell and Gaus in *1945 Senate Hearings*, 739, 747.
- 25 For example, William F. Ogburn, 'The Folkways of a Scientific Sociology,' *The Scientific Monthly* 30 (1930), 300–6; Robert M. Yerkes, 'The Scope of Science,' *Science* 105 (May 2, 1947), 461–63.
- 26 On the White House's position, see President's Scientific Research Board (John R. Steelman, chair), *Science and Public Policy*, vol. 1 (Washington, DC, 1947), viii.
- 27 See England, *Patron for Pure Science*.
- 28 Public Law 507-81st Congress, the National Science Foundation Act of 1950.
- 29 For further analysis, see Mark Solovey and Jefferson D. Pooley, 'The Price of Success: Sociologist Harry Alpert, the NSF's First Social Science Policy Architect,' *Annals of Science* 68 (2011), 229–60, esp. 'A Durkheim Scholar,' 232–39; also 245.
- 30 Solovey and Pooley, 'The Price of Success,' 239–40, 243–45.
- 31 *Ibid.*, 245–6; also Solovey, *Shaky Foundations*, Chapter 4, 148–87.
- 32 Memo, Harry Alpert to Dr. Waterman, May 22, 1953, Folder Social Science Research 1953–56, Box 20, Director Files Alan T. Waterman (hereafter, Waterman Files), National Science Foundation Collection, Record Group 307 (hereafter, RG 307), National Archives, College Park, MD.
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- 34 McCann quoted in NSB Members Books, 55th Meeting, Sept. 16–17, 1958, Tab A, 7 (NSB Library, NSF headquarters, Alexandria, Virginia).
- 35 See Appendix C, Recommendations Approved by National Science Board, August, 1954, attached to Harry Alpert, with the assistance of Bertha W. Rubinstein, Progress Report No. 5 (Revised), February 1, 1956

- (hereafter, Progress Report 5), Folder Role of the Foundation with respect to Social Science Research (Alpert, Mar. 1954), Box 8, Historian File Series.
- 36 Alpert, Progress Report 5, 3.
- 37 Budgetary figures from p. 10 in George Mazuzan, 'NSF 88-16, A Brief History,' July 15, 1994, <https://www.nsf.gov/about/history/nsf50/nsf8816.jsp>.
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- 43 Larsen, *Milestones and Millstones*, figures on p. 63 in current dollars, converted to constant 1965 dollars using CPI online inflation calculator.
- 44 Based on listings of board members in NSF annual reports.
- 45 Topics off limits noted in Harry Alpert, 'The Social Sciences: Problems, Issues and Suggested Resolutions,' April 15, 1958, in NSB Members Books, 54th Meeting, June 24, 1958, Tab R, NSB Library.
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- 47 Anon, 'NSF and Behavioral Science,' *American Behavioral Scientist* 7 (Sept. 1963), 70.
- 48 Memo, Henry W. Riecken to Leland J. Haworth, Sept. 19, 1963, 2, 3, Folder Political Science 1963, Box 11, Leland J. Haworth Director Files, July 1963-Dec. 1964, RG 307.
- 49 Jacob Heilbrun, 'Reagan's Athena,' [www.theamericanconservative.com](http://www.theamericanconservative.com) July 25, 2012, accessed June 7, 2016.
- 50 Memo, Henry W. Riecken to Leland J. Haworth, Sept. 19, 1963 (see note 48).
- 51 *Ibid.*, 1.
- 52 *Ibid.*, 1.
- 53 See Evron M. Kirkpatrick to Senator George S. McGovern, Nov. 26, 1963, Folder Political Science 1963.
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- 57 Larson, *Milestones and Millstones*, 104; percentages and budgetary figures in current dollars converted into constant 1975 dollars using CPI online inflation calculator.
- 58 See discussion in Johnston, 'Senator Proxmire Bars Race in 1988,' *New York Times*, Aug. 28, 1987.
- 59 Proxmire quoted in Philip M. Boffey, 'Love and Senator Proxmire,' *Chronicle of Higher Education*, March 24, 1975, 5–6, at 5; and L. Stuart Ditzen, 'Why Do Phila. Folk Talk That Way?' *Philadelphia Bulletin*, March 2, 1977.
- 60 See the series of letters by Ornter, Rappaport and Proxmire published under 'Golden Fleece Award Sparks Protests,' 2, 8, 9 in *Anthropology Newsletter*, 20:10 (Washington, DC: American Anthropological Association, 1979).
- 61 *Ibid.*, 9, 2.
- 62 *Ibid.*, 9.
- 63 PSAC, 'Strengthening the Behavioral Sciences,' *Science* 136, April 20, 1962, 233–41, esp. 238. H. W. Riecken to Alan T. Waterman, 'Annual

- Review of the Division of Social Sciences, FY 1962,' July 15, 1962, Folder Social Sciences Annual Reports, Box 42, Historian File Series.
- 64 Jerome S. Bruner, *Toward a Theory of Instruction* (Cambridge MA, 1966), 'Man: A Course of Study' 73–101, at 74.
- 65 NSF, *1970 Annual Report*, 71.
- 66 Dorothy Nelkin, *The Creationist Controversy: Science or Scripture in the Schools* (New York, 1982), 35, 34, 53, 41. To derive the 2018 equivalent of \$7.3 million, I first considered this figure to be in 1972 dollars (because all NSF funding for MACOS came before 1975), and then put it into the online CPI calculator.
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- 68 Conlan quoted in Deborah Shapley, 'Congress: House Votes Veto Power on All NSF Research Grants,' *Science* 188 (April 25, 1975), 338–41.
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- 71 See Larsen, *Milestones and Millstones*, Chapter 6, 'The 1980s: Threat, Unity, Priorities.'

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SOLOVEY

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