Venture into Politics: Scientists and Engineers in the Election Campaign (II)

On the Sunday before election day, Henry Fonda appeared on the television screens of 128 communities throughout the country and said, "now you are going to meet six of the most brilliant and able men this country has produced."

For the remainder of the half-hour broadcast, a physician and five scientists and engineers cited each other's professional experience, praised Lyndon Johnson, and lacerated Barry Goldwater as unfit for the presidency. Benjamin Spock, the Solomon of child care for millions of parents, said he found Goldwater's views on education "shocking." Admiral William F. Raborn (retired), popularly known as "father" of the Polaris submarine, said Goldwater's views on military preparedness "don't make sense." Harold Urey, Nobel laureate in chemistry, described the Republican candidate as a "blustery, threatening man, who talks often without thinking, shoots from the hip. . . ." Herbert York, director of Defense Research and Engineering under President Eisenhower, described himself as "appalled" that Goldwater, a major general in the Air Force Reserve, "could be so wrong on the basic facts of our weaponry." Jerome B. Wiesner, science adviser to the late President Kennedy, replied, "He's an amateur general." And George B. Kistiakowsky, who held the science advisory post under Eisenhower, said he considered Goldwater's policy positions "rash and primitive."

The program was presented immediately following the Sunday professional football broadcasts in most communities and, presumably, was seen by millions.

A few weeks earlier, a Republican-sponsored advertisement in the Houston *Chronicle* cited the heart attack that Johnson suffered in 1955; it said that medical statistics favored Hubert Humphrey's succession to the White House before the expiration of a full term for Johnson. The same edition of the *Chronicle* carried a news story in which "a world famous heart surgeon," Michael DeBakey, chairman of Baylor University's department of surgery, deplored the "irresponsible use of medical statistics." DeBakey was quoted as saying that the Goldwater advertisement was "the grossest evidence of irresponsibility."

At about the same time, Senator Goldwater attacked the Johnson administration for what he described as poorly conceived space policies. Shortly afterward, press reports carried a rebuttal by York, the former Defense research director. He referred to the Republican candidate as "rash and irresponsible," and said that his record on space was "inconsistent, ill-considered." The rebuttal received wide press coverage.

Meanwhile, a 40-page booklet, titled "The Alternative is Frightening," circulated around the country. The cover carried serious-faced, formal portraits of Johnson and Humphrey, and a photograph of a narrow-eyed, grimacing Barry Goldwater in an aviator's helmet. It was written, financed, and distributed by Scientists and Engineers for Johnson, which was instigator of the DeBakey and York rebuttals to Goldwater, producer of the TV panel show (at a cost of $36,000, which it paid out of its own funds), and source of a ceaseless, nationwide assault on the Goldwater candidacy. At every turn, as the Republican candidate addressed himself to issues with scientific or technological components—and there are few issues without them in public affairs today—he found himself under virulent attack by prestigious men of science, engineering, and medicine.

How these professional communities organized for the political campaign was described in the first installment of this series. Why they organized is a more difficult question, and the answers are less certain. Looking at the other professions and campaign groups, we find, for example, that lawyers set up an organization to support the Johnson candidacy, but its activities were largely restricted to fund-raising and name-listing in behalf of the ticket. Professors for Johnson established chairmen in all 50 states and signed up 22,000 members, but it, too, was largely a fund-raising and prestige organization.

On the Republican side, apparently in response to the impact of Scientists and Engineers for Johnson, two counterpart organizations were set up late in the campaign: an advisory task force on Space, Science, and the Atom; and Scientists and Engineers for Goldwater. The first was in the traditional pattern of a campaign brain trust. It produced several position papers—which instantly drew attacks from the Johnson organization—but there is no evidence that it played a significant role in Republican policy-making or attracted much public attention. The second made no attempt to emulate the nationwide structure or activities of the Scientists and Engineers for Johnson. Republican Party professionals are tight-mouthed about both organizations, but it is known that they had difficulty attracting members, and the public announcement of both was repeatedly delayed until a respectable membership could be rounded up.

Why, then, did the scientists and engineers flock to Johnson, as did no other professional groups to either side in the campaign?

In seeking the answers, it is tempting to speculate that scientists and engineers, because of their training and work, acquire a particular type of political perception. For example, it has been suggested by some members of Scientists and Engineers for Johnson that these professions are especially attuned to the maintenance of an ordered world, and felt threatened or offended by the social and political discontinuities implicit in many of Goldwater's proposals. Unquestionably, many of them felt just that way, but lots of other people, from shopkeepers through architects, looked upon Goldwater as a threat to an ordered world; nevertheless, it was only the scientists and engineers who set up a Washington headquarters and 48 state chapters to do something about it.

Speculation on the source of motivation has also focused on the fact that the scientific and engineering communities outdistance the general public in knowledge of the effects of nuclear warfare. Again, it is difficult to see how

this can account for much of the intensity and scope of the energy that was turned against Goldwater. The general public may not have a professional understanding of the effects of nuclear blast and radiation, but it understands, or misunderstands, enough of the general picture to be as concerned as the most knowledgeable professional.

It has also been suggested that many scientists and engineers selfishly feared that Goldwater would disrupt the laboriously built structure of federal support for research, development, and education. To some extent, this may provide a clue to the ferocity and depth of the reaction that he inspired in the scientific and engineering communities. But the clue does not carry very far. Goldwater's frequently stated aversion to federal support for education conflicted with the interests of many segments of American society, but none of them chose the path taken by the scientists and engineers. And as for the dollar and cents matter of next year's grants and contracts, Goldwater never revealed himself to be an opponent of federal support for research. He was frequently berated during the campaign for having at times voted against increased appropriations for federal research agencies, but a look at the record reveals that in those votes he often was in the company of some of the most liberal and knowledge-loving members of the Senate, Furthermore, in his voluminous pre-campaign writings, and throughout the campaign, the Senator said virtually nothing that could reasonably be interpreted as conflicting with the immediate professional interests of scientists and engineers. Thus, there is little support to be found for the theory that the scientists and engineers were simply looking out for their own needs when they banded together to oppose Goldwater.

It has also been suggested that some of Goldwater's followers served to freshen up memories of the suspicion and hysteria that the late Senator Joe McCarthy directed toward the academic settings where many scientists and engineers work. (One senior scientist who played a leading role in founding Scientists and Engineers for Johnson not only cited McCarthy but recalled his own student days in Germany in the 1920's. "Goldwater," he said, "cannot be likened to Hitler, but some of the people around Goldwater reminded me very clearly of the types that I saw going to Hitler's support.") But McCarthy's works weren't felt only in the academic world. He produced havoc across the board. He tore apart the entertainment world, but, again, Hollywood and Broadway didn't set up a nationwide network to support Johnson.

Finally, some skeptics on the Republican side offer the theory that Scientists and Engineers for Johnson was a sheeplike movement, initiated by the Democratic Party professionals through a relative of the President's (Donald M. MacArthur, director of the organization and husband of Mrs. Johnson's niece), led by the beneficiaries of federal support for research, and held together by an unspoken and subtle fear of difficulties with grants and contracts for those who declined to cooperate. However, there isn't any evidence to support the theory that such forces were either consciously or unconsciously at work. Threats, implied or explicit, are unlikely to move Nobel laureates in physics to devote their evenings to addressing envelopes; and for every scientist, engineer, and physician whose participation was initiated by a direct invitation, there were probably half a dozen who voluntarily presented themselves to seek campaign duties.

In some places, it appears, long hours at campaign headquarters became a sort of social distinction. (Many of the volunteers would proudly complain of the cruel hours they donated to the cause.) But, though it unquestionably became the thing to do at many institutions, it was quite a simple matter at these same institutions for any individual to go about his life as though no election were taking place. As one such nonparticipant put it, "I was asked to join and I told them I was too busy, and that was that."

Bond of Anti-Goldwaterism

A more likely analysis is that a number of factors simultaneously came together to produce the nationwide effort of Scientists and Engineers for Johnson. The most basic was the Goldwater candidacy. Justifiably or not, it frightened many people; it particularly frightened that small segment of the technical community which for the past decade has been a principal architect of this nation's military systems and arms control policies. Goldwater, in proposing a more truculent attitude toward the Soviet Union and more aggressive development of new weapons, was calling for a break with policies formulated over a decade under the leadership of these men. Quite understandably, they didn't like it. But it wasn't written in the stars that their dislike would manifest itself in a nationwide organization. In fact, it is probable that if MacArthur with his political connections hadn't come along with ambition to get into the thick of the campaign, the anti-Goldwaterism of the senior scientists would probably have taken the traditional form of brain trusts, fund raising, and occasional public statements. It seems unlikely that, without the central direction and drive that was provided by a well-financed Washington headquarters and a professional organizer, any sort of nationwide scientists and engineers campaign effort would have come into being. It is one thing for a political novice to feel inclined to get into the campaign; it is another to get an invitation from one of the leading figures in the scientific community, and a follow-up from a professional organizer who provides the a-b-c's of political action. MacArthur's access to the White House made it possible for him to accomplish easily what many other persons probably thought about and gave up as too difficult. And, networks of personal and professional relationships that run through the scientific and engineering communities made it possible to put together a nationwide organization in a matter of weeks. The networks all run through Washington—which has become the principal paymaster of American research—and, since Washington is in the hands of the Democrats, there were telephones, secretaries, and offices already at hand to facilitate the early organizational work.

Finally, it appears that, midway in the campaign, the President himself took attentive notice of Scientists and Engineers for Johnson and decided that it was a promising device for turning the public against his opponent. As one high Democratic Party leader put it, "The President saw that it was the nuclear issue that was killing Goldwater, and he decided that the best way to hit Barry on the bomb was with the scientists who made the bomb." The President's interest in the scientists and engineers supporting him was fed by MacArthur, who saw to it that news clippings about the organization and other material were included in the pile of night reading that was regularly assembled for the Chief Executive. It was the President, according to party officials, who suggested the TV panel show as a sort of technical community haymaker against Goldwater on the nuclear issue; he scanned the numerous

newspaper advertisements that Scientists and Engineers for Johnson ran in his behalf, and even complained to party officials that one such advertisement, in the New York *Times*, failed to mention his name often enough. And, again, according to party leaders, it was Johnson who suggested that Scientists and Engineers for Johnson employ spot radio announcements in his behalf.

"Shockingly Irresponsible"

These may well have been in the works before the President suggested them, but in any event they were potent stuff. Featuring Wiesner, Urey, Spock, Raborn, and York, these spot announcements consisted of a series of statements of support for Johnson and denunciations of Goldwater. They were broadcast some 3000 times throughout the country. On one tape, Urey said that "many Goldwater statements regarding the use of nuclear weapons are shockingly irresponsible." And in another, Spock, introduced as the "famous child care expert," said, "I don't see how any parent who is serious about the education and happiness of his children can do other than vote for President Johnson and Senator Humphrey." (Inez Robb, the newspaper columnist, later quipped that Spock's appearance in the campaign marked "the exact moment at which all hope for victory oozed away from the Republican candidate. . . . Millions of mothers and grandmothers in the United States," she wrote, "would as soon question Dr. Spock as they would Holy Writ.")

Thus, with Johnson taking a personal interest, and the scientists and engineers flocking to their well-organized local chapters to seek campaign duties, the organization prospered, and expanded to fill the campaign role carved out for it.

Clearly, a large part of the story of Scientists and Engineers for Johnson can be summed up as expert cultivation on fertile soil.

Does the experience of the past campaign mean that scientists and engineers are in the process of emerging as a well-defined political force in national elective politics? The available evidence and the judgments of many of those who were centrally involved in Scientists and Engineers for Johnson suggest a negative answer. But, at the same time, as one scientist put it, "having tasted political blood, we'll never be the same."

Perhaps the most important thing to be said about the genesis of Scientists and Engineers for Johnson was that it developed in response to a particular political circumstance: the candidacy of Barry Goldwater. If the Republican candidate had been William Scranton, Richard Nixon, or Nelson Rockefeller, it is improbable that the leadership or the rank and file of the scientific and engineering communities could have been so easily mustered in behalf of Johnson. Repeatedly one was told that the organization should have been called Scientists and Engineers Against Goldwater. Anti-Goldwaterism was, in fact, so clearly the only unifying basis for the organization that Washington headquarters and the state chapters recognized at the outset that it was mandatory to stay away from local and state issues. And, unless a future campaign presents a presidential candidate so far from the political center as Barry Goldwater, it is improbable that large segments of the scientific and engineering communities can be rallied as they were for the 1964 campaign.

But going farther afield into speculation, the fact is that lots of scientists who were once apolitical have indeed tasted the heady stuff of politics, and they have found that they can be effective. Though their thoughts do not yet seem to be fully clarified, a number of them—especially some younger people in California and Massachusetts—hope that some portion of Scientists and Engineers for Johnson can be preserved to function as a sort of political action organization. But most members seem to be indifferent to this interest, and a good number are actively opposed, for a variety of reasons: that many Republicans were brought into the organization with the understanding that it was a one-shot affair conceived in response to Goldwater; that the scientific and engineering communities will tarnish their public prestige by regular involvement in national politics; and that professional societies and regular party organizations are the appropriate channels for scientists and engineers interested in affecting public matters.

Regional Lobbying

Nevertheless, it is difficult to believe that the intense activity of the last campaign is not going to leave some political progeny. Future campaigns may well see a kind of escalation producing science and engineering groups on both sides. Scientists and Engineers for Johnson did not in any way function as a political lobby for science and engineering—possibly because these professions can't really gripe very much about the way the federal government has treated them. But it is possible that the tightening of federal funds for research and development may turn thoughts toward the sort of collective political action that worked so well in the last campaign. Clearly, the scientific and engineering communities are too distinct from each other, and each is too diffused throughout the country, for them to reenact their 1964 performance for bread-and-butter goals. But there are common regional interests—such as the location of federal research facilities—that could provide the basis for political action on a less-than-national scale.

In any case, more than 50,000 scientists, engineers, and physicians have just passed through an exciting and successful political baptism. It is not likely that they are going to consider that experience to be irrelevant to their future professional and political concerns.—D. S. GREENBERG

(This concludes a series on scientists and engineers in the presidential campaign.)

Centers of Excellence: New NSF Science Development Program Aims at "Second 20" Universities

The phrase "centers of excellence" has acquired, in the last few years, a special meaning for a group of American universities which are neither the best nor the worst, but aspire to a more favorable place in the academic sun.

Excellence in universities is difficult to define and even more difficult to measure. But the existence of a quality hierarchy, as it is sometimes called, among universities is one of the important facts of life in higher education today, and there is general agreement within the university community as to which institutions rank at the top. These universities tend to pay the highest salaries, boast the most celebrated faculty members, attract the better undergraduate and graduate students, and award the most Ph.D.'s.

Since World War II, a major index of status has been the volume of federal funds for scientific research which an institution attracts. The basic federal policy of directing funds to the institutions deemed most capable of performing the desired research has resulted in a concentration of funds in a relatively few institutions, with the effect,