Scientists in Politics: Humphrey Group Outshines Nixon's

Despite organizational gaffes and difficulties in winning over disenchanted McCarthyites, Vice President Hubert Humphrey seems to have forged ahead of Richard Nixon in the race to round up support in the scientific community.

At a press conference early this week, the Humphrey camp produced a list of 141 scientific and academic backers who have agreed to serve as founding members of Scientists and Engineers for Humphrey-Muskie. The Humphrey group overshadows, both in numbers and in scientific honors, a similar group announced earlier by the Nixon camp. Whether the disparity between the two groups provides an accurate gage of sentiment in the scientific community, or whether it primarily reflects a greater organizational effort on the part of the Humphrey camp, is not completely clear at this writing.

Regardless of their merits as political barometers, a comparison of the Humphrey and Nixon groups provides some interesting contrasts, and perhaps sheds some light on the insight with which each candidate approaches the scientific community. Surprisingly enough, for a candidate who is stressing the need for national unity, Nixon chose Rear Admiral Lewis L. Strauss, a controversial conservative, to organize his support among scientists, engineers, and others concerned with relations between science, government, and industry. Strauss was barred from a cabinet post in 1959 when the Senate refused to confirm him as Eisenhower's Secretary of Commerce, and he is something of a bête noire to many scientists because of his role in depriving J. Robert Oppenheimer of a security clearance in 1954 while Strauss was chairman of the Atomic Energy Commission. The 19-man group which Strauss organized for Nixon is laden with retired military men and administrators and includes but one Nobel laureate (*Science*, 4 Oct.). Several members of the group are considered proponents of improved nuclear weaponry. At a press conference Monday, Jerome B. Wiesner, a leader of the Humphrey backers and former science adviser to Presidents Kennedy and Johnson, said the Strauss group represents "the troglodyte, or dinosaur wing of the scientific community. . . . Anyone who would turn to Lewis Strauss for scientific guidance is not a man you'd want to be president of your country."

In contrast with the military-administrative flavor of the Nixon committee, the Humphrey group is studded with eminent scientists, including 11 Nobel prizewinners and 76 members of the National Academy of Sciences and the National Academy of Engineering.* The Humphrey group is headed by ten co-chairmen who seem to have been picked because of their appeal to various elements in the scientific and academic worlds. The ten include Hans A. Bethe, Nobel laureate and professor of physics at Cornell University; Wallace R. Brode, scientific consultant and president-elect of the American Chemical Society; Detlev Bronk, president emeritus of Rockefeller University and past president of the National Academy of Sciences; Kenneth Clark, professor of psychology at City University of New York; Philip Hauser, professor of sociology at the University of Chicago; William D. McElroy, chairman of the biology department at Johns Hopkins University; Chauncey Starr, dean of engineering at University of California, Los Angeles; Harold C. Urey, Nobel laureate and professor-at-large, University of California; James A. Van Allen, head of physics and astronomy, State University of Iowa; and Wiesner.

The big problem for Humphrey has been winning over former supporters of Senator Eugene McCarthy, the Minnesota Democrat, who was immensely popular on the nation's campuses and who put together, seemingly without much effort, a star-studded list of scientific backers, including 12 Nobel Prize winners, as part of his bid for the Democratic presidential nomination. The Humphrey camp claims the support of more than a dozen of McCarthy's former national sponsors, including Ascher H. Shapiro, head of the department of mechanical engineering at M.I.T., who was one of the earliest organizers of support for McCarthy; Jerrold R. Zacharias, M.I.T. physicist; and four Nobel laureates, Donald A. Glaser, Polykarp Kusch, Maria Mayer, and Dickinson W. Richards. However, many former McCarthy supporters are clearly lukewarm about the Vice President. Humphrey's campaign aides say they have had about 50 percent success in persuading those McCarthyites they have approached in the scientific community to join the Humphrey team.

The ambivalence felt by many former McCarthyites is well illustrated in the case of George B. Kistiakowsky, former science adviser to President Eisenhower, and Edward M. Purcell, Harvard Nobelist, who were both on McCarthy's scientific advisory board and who have been sitting on the fence since McCarthy's defeat at the Democratic convention. Kistiakowsky and Purcell told *Science* that while they have declined to be identified with the Humphrey group, they nevertheless support Humphrey "because of his dedicated leadership against the nuclear arms race, his consistent advocacy of enlightened domestic policies, and because of our hopes that President Humphrey will terminate our military involvement in Vietnam in consonance with the principles advocated by Senators McCarthy and Kennedy."

Humphrey's effort to enlist scientific support has been marred by the same organizational chaos that seems to be afflicting the entire Humphrey campaign. One of the more embarrassing slipups involved William Doering, professor of organic chemistry at Harvard, who received a communication from Humphrey late in June asking him to be a founding member of Scientists and Engineers for Humphrey. Doering told *Science* he wrote back and declined. (Apparently a lot of others declined, too, because Humphrey never did set up a scientific support group before the convention, though he did establish a four-man organizing committee that

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* Nobelists in the group include: Hans Bethe, Andre F. Cournand, Donald A. Glaser, Robert Hofstadter, Edward C. Kendall, Polykarp Kusch, Edwin M. McMillan, Maria G. Mayer, Dickinson Richards, Charles H. Townes, and Harold Urey.

Academy members, in addition to the above, include: James Bonner, Wallace Brode, Detlev Bronk, Herbert C. Brown, Herbert E. Carter, Joseph W. Chamberlain, Edward U. Condon, Martin Deutsch, René Dubos, Freeman Dyson, Val L. Fitch, Louis B. Flexner, William Fowler, Richard L. Garwin, Murray Gell-Mann, Ralph W. Gerard, Marvin Goldberger, Samuel A. Goudsmit, Herbert S. Gutowsky, Herbert S. Harned, Raymond G. Herb, Bernard L. Horecker, Philip Levine, F. Wheeler Loomis, Oliver Lowry, Maclyn McCarty, Walsh McDermott, Gordon MacDonald, William McElroy, Colin MacLeod, Joseph E. Mayer, Karl Meyer, Robert L. Miller, Walter Munk, Wolfgang K. H. Panofsky, E. R. Piore, Colin S. Pittendrigh, Frank Press, Oscar Riddle, Richard B. Roberts, Alfred S. Romer, William W. Rubey, Robert Serber, Ascher H. Shapiro, Sol Spiegelman, Philip Sporn, Stanislaw M. Ulam, James Van Allen, Frederick T. Wall, Aaron C. Waters, Victor Weisskopf, John Wheeler, Jerome Wiesner, Harland G. Wood, Sewall Wright, Jerrold Zacharias, and Frederick W. H. Zachariasen. Also Leo L. Beranek, Milton N. Bramlette, Bryce L. Crawford, Jr., Martin D. Kamen, H. W. Menard, Per F. Scholander, Chauncey Starr, and Charles A. Thomas, Jr.

did little and soon became dormant.)

Despite Doering's refusal to support Humphrey, his office received a letter on 2 August stating that his name would appear shortly in an advertisement in the New York *Times* listing "Professors for Humphrey" unless he notified the Humphrey camp otherwise. Doering was out of the country, but his secretary called the Humphrey camp and suggested that Doering's name be dropped. She was informed that Humphrey aides had been in touch with Doering and had cleared the use of his name. Actually, no one had contacted Doering. The ad appeared (with Doering's name misspelled), and Doering forced the Humphrey camp to run a retraction ad in the *Times*. A somewhat similar experience befell Felix Bloch, the Stanford Nobelist, who also declined Humphrey's invitation but then found his name listed in the ad and subsequently won a retraction. The Humphrey ad even listed a man long dead. Bloch is the Max H. Stein professor of physics at Stanford and—you guessed it—the Humphrey camp managed somehow to list Stein's name as a supporter.

The Humphrey campaign has also been embarrassed by mind-changing on the part of eminent scientists. Philip Handler, chairman of the National Science Board, first agreed to be listed as a Humphrey organizer, then backed out on the grounds that scientists should not involve their profession in partisan politics. Similarly, the Humphreyites on 15 September sent out telegrams claiming the support of Princeton Nobelist Eugene Wigner, among others, only to have Wigner dissociate himself from the campaign.

There seem to be major differences in the campaign themes stressed by the Nixon and Humphrey camps. The Nixon group, in its first press release, blamed the present budget crunch in research on the Johnson-Humphrey administration and asserted that the Eisenhower-Nixon administration had seen "eight years of scientific growth." The Humphrey group's first press release, on the other hand, largely ignored the bread-and-butter issue and stressed the belief that Humphrey and Muskie offer the best chance for nuclear peace and domestic tranquility.

The difference between the two camps seems particularly great on military matters. Nixon has stressed the importance of science in developing new weapons and has blamed the Johnson-Humphrey administration for "risking the opening of a research gap" with the Soviet Union. Humphrey, on the other hand, has emphasized his record on arms control, including his support of the nuclear test ban and nuclear nonproliferation treaties. James Reston, New York *Times* columnist, asserted last week that "the most important single difference" between Nixon and Humphrey "is in the field of arms control"; and the *Times* endorsed Humphrey for President, citing his arms control record as a prime reason. Many of Humphrey's scientific backers say they were attracted by his efforts to curb nuclear weapons.

The Nixon and Humphrey groups will apparently play somewhat different roles in the campaign. The Strauss committee seems to have no plans to raise money or conduct an especially vigorous campaign. The Humphrey camp, on the other hand, is urging its Scientists and Engineers group to raise money for advertising and to campaign at the local level. Humphrey has also set up a separate panel of eight scientists, headed by Wiesner, to advise him on technical matters,† while Nixon has established no formal science advisory apparatus.

The impression one gets is that Humphrey has spent considerably more effort in courting the scientific community than has Nixon. Whether such support will make any difference to Humphrey's lagging campaign is another question.—PHILIP M. BOFFEY

† Besides Wiesner, the advisory group includes: Thomas Malone, Emanuel Piore, Roger Revelle, David Z. Robinson, Harvey Sapolsky, Athelstan Spilhaus, and Chauncey Starr.

The Soviet Union's Zond 5: Is It Also a Planetary Spacecraft?

Since the end of the mission of the Soviet Union's Zond 5 spacecraft on 21 September, U.S. observers have interpreted Zond 5 as being an unmanned precursor of a manned lunar mission. While we agree with that specific view, we feel that there is strong evidence that Zond 5 is also a precursor of an unmanned planetary mission of much greater capability than has been heretofore believed possible.

It is obvious also that a new, larger launch vehicle is now being used for lunar flights. Presumably this is the "Proton"-class system predicted in 1966 [*Science* **151**, 945 (1966)].

The most striking evidence for the unmanned-planetary-mission interpretation comes from the official Soviet report which emphasized that Zond 5 is a major advance in space technology relevant to planetary exploration:

> . . . However, none of these automatic apparatus* was brought back to earth, since at that stage of development, space technology was not able to cope with this task. The scientific information that was obtained was transmitted from the apparatus via radiotelemetry channels. However, no matter how perfect radiotelemetry and television may be for transmitting information, their capability is to some extent limited. Moreover, some of the information obtained by the scientific apparatus could not be analyzed on board the space apparatus.
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> The development of space technology presents scientists with ever more complex problems in the investigation of interplanetary space and the planets of the solar system.
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> An urgent solution is now needed for such problems as studying the surface and crust of the planets and the composition of their chemical elements and minerals, and searching for traces of living organisms.
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> There is likewise great scientific interest in receiving firsthand photographs of the surface and radiation spectra of the heavenly bodies, free of the encumbrances and distortion of telemetric transmission.
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> Therefore, the further development of Cosmonautics has placed on the agenda the question of delivering information from space directly to the scientists' laboratories. This assignment of developing the means and methods for returning space devices from interplanetary trips was given the Soviet space ship "Zond-5" and was successfully completed.

(The above quotation is from an article by Professor A. Dmitriyev, reported in both *Red Star* and *Pravda* on 25 September 1968.)

Additional evidence of the relationship

* The phrase "these automatic apparatus" refers to all previous Soviet lunar and planetary spacecraft.