## Governor Jerry Brown: Reelection of a Politician Committed to Change

Sacramento, California. Now that Governor Edmund G. "Jerry" Brown has won reelection by burying his Republican opponent (Attorney General Evelle J. Younger, a candidate often described as "lackluster") under the expected landslide of votes, the next question is, What does his victory portend for the next 4 years?

Brown could of course become a serious contender for the presidency in 1980 if Jimmy Carter should run into new troubles and again slip badly in the polls. But presidential politics aside, Brown is now assured of the opportunity to continue implementing innovative policies which he and the California Legislature have initiated and to make a lasting imprint on this huge and important state.

His overwhelming victory is attributed partly to his swift and adroit reversal of position on Proposition 13 when that ballot initiative to reduce local real estate taxes carried by a big majority last June. Brown joined in the "tax revolt" so convincingly as to all but erase from the voters' memory that a few months earlier he had been denouncing the proposition as a shameless fraud.

In accomplishing this bit of political legerdemain he not only distributed an embarrassing \$5 billion state surplus to the local governments but called for and got a \$1 billion cut in state taxes. Indeed, in a brief interview with *Science* a few days before the 7 November election, Brown said that his number one priority in his next term as governor would "probably be putting some limitations on the growth of government."

#### Making a Difference

His sometimes startling changes of position, together with the fact that Brown has been identified with everything from Zen Buddhism and a monastic life style to a fascination with Linda Ronstadt and the promotion of space technology, have led many Californians to see the governor as more image than substance. Yet the fact is, Brown has already made a substantial difference to California, even if his policies and actions are not always guided by a consistent philosophy.

To take the important field of energy

and environmental policy as a prime example, Brown has been almost alone among major national political figures in paying more than lip service to the proposition that the United States and other countries are in the early stages of a transition to a new era in which the profligate ways of the past must be abandoned. Although his early "era of limits" was followed—perhaps to the relief of some development-oriented Californians-by an 'era of possibilities," this shift of rhetorical emphasis was not accompanied by a turnabout of administration policies. Brown and his appointees have pretty consistently pursued an energy policy that stresses conservation, renewable resources such as solar and geothermal, and environmental protection.

Because of this, the governor is as popular with California environmentalists as he is unpopular with a substantial part of the business community. Early this year the state Energy Commission was swept by new waves of approbation and resentment when it recommended that the legislature not exempt the proposed Sundesert project in southern California from the moratorium on construction of more nuclear power plants. All five members of the commission are Brown appointees, and their 4 to 1 decision in this celebrated case was a clear reflection of the governor's personal preferences against going ahead with Sundesert. And these were not preferences dictated by politics, for as public opinion polls have since shown, most Californians, if only by a bare majority, still want more nuclear plants.

In supporting the nuclear moratorium Brown gambled that California's future growth in demand for electric power can be met through construction of nonnuclear facilities, conventional and unconventional alike. In the specific circumstances of the Sundesert case, Brown and his appointees on the Energy Commission were betting on the political and technical feasibility of a package of nonnuclear alternatives which, among other things, included the Intermountain Power Project in Utah (a proposed coalfired station opposed by some conservation groups), a 475-megawatt coalburning plant in southern California that

would have to be clean enough to get by stringent air quality regulations, and 400 megawatts of power from geothermal plants in the Imperial Valley of a kind not yet demonstrated.

(This package is widely regarded among state legislators, including some key supporters of the nuclear moratorium, as lacking credibility. For their part, California utilities not only put down the Sundesert alternatives as unrealistic but complain of a regulatory morass that frustrates their efforts to get *any* major new conventional generating facilities licensed and built.)

Brown is too complex a personality and politician to be fairly characterized as "anti-growth" or "anti-business." He has exhibited a genuine fascination with high technology, and his boosting of California's information systems and aerospace industries led to an elaborate "Space Day" observance in Los Angeles in August 1977.

"A space program can create new wealth," Brown said on this occasion. "And out of this wealth comes a higher standard of living, a boom to California's business and job market." His enthusiasm for opening up "new frontiers" in space was such that the *New York Times*, recalling the governor's earlier emphasis on "limits," headlined its story of the event "The Newly Spaced Out Brown Comes as a Shock."

Shortly after Space Day, former astronaut Rusty Schweickart, who had come to know Brown as a representative of the National Aeronautics and Space Administration's office of technology transfer, joined Brown's staff as the first full-time science adviser ever to serve in the California governor's office. Schweickart's first assignment was to work out plans for California to join NASA in an innovative communications project. With the launching of a powerful new communications satellite by the space shuttle, the state would be able to deploy portable voice-and-video ground receivers for better control of forest fires in remote areas and for directing disaster relief after earthquakes or other calamities. Now, because of the budget cuts that followed Proposition 13, the original plan for California to participate in the project at a cost of about \$5.8 million has been scrapped, but a cheaper alternative is being considered.

#### Brainstorming

Before this year's political campaign season, Schweickart, whose office is just across the hall from the governor's suite, was seeing Brown nearly every day. Their conversation, he says, had to do with "just about anything related to science and technology going on in the press" and some things which had not surfaced in the news media. "The governor stays very current," Schweickart adds. "He does not have much background on technical issues, but he is usually well ahead of others on their societal implications."

Brown is famous for his brainstorming sessions with aides and outside experts, and some of these sessions have been known to begin after lunch and last until the small hours of the morning. Brown has at one time or another consulted types as diverse as the late E. F. Schumacher and Amory Lovins of the "soft path" and Herman Kahn of the hard path. "I believe in the mosaic theory," the governor told *Science*. "Life is many different themes."

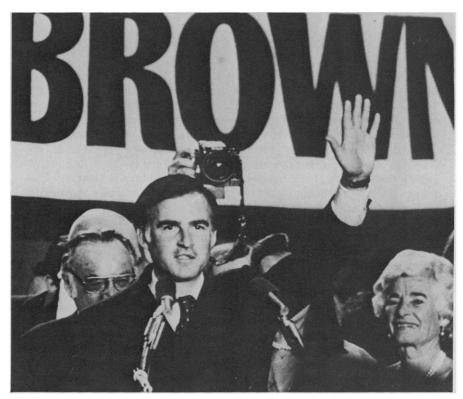
Schweickart is one of several aides who have contributed to Brown's wide information network by arranging meetings between the governor and outsiders eminent in one field or another. He has, for instance, brought in as consultants people such as Thomas Paine of Northrop Aircraft Corporation (and former administrator of NASA), Robert Anderson of the Atlantic Richfield Company, and Bruce Ames (of the "Ames test"), one of the leaders in mutagen testing.

#### **Telling Appointments**

Many California observers, whether sympathetic to Brown or not, believe that the governor's appointments have been one of the most telling things about his administration so far. A campaign aide to Younger was quoted by the Wall Street Journal as saying, "Jerry Brown is symbolism for everyone, and action for the left through appointments." There seems to be a good bit of truth in that observation if "left" is loosely construed to embrace a fairly wide range of political attitudes unified chiefly by a conviction that the times are ripe for some major changes.

A "high-tech" type such as Schweickart can be contrasted with others, such as energy adviser Wilson Clark, author of Energy for Survival and a strong proponent of small-scale, decentralized technologies to exploit solar energy in its various forms. Another aide, Bill Press, who is said to be especially close to Brown, was an environmental activist and lobbyist for the Planning and Conservation League until he joined the administration as director of planning and research

Press developed the governor's ambitious "urban strategy" before becoming codirector of the Brown reelection



A jubilant Jerry Brown, with his parents, former Governor and Mrs. Pat Brown, greets supporters after his reelection to a second 4-year term as governor. (AP Photo)

campaign this year. This strategy, set back temporarily by funding constraints stemming from Proposition 13, has the aim of stopping sprawl and encouraging the growth and revitalization of cities largely within their existing boundaries. According to Press, the urban strategy is a key part of the administration's program, and Brown will push for it when the legislature reconvenes.

A new member of the governor's inner circle is Huey J. Johnson, secretary of the Resources Agency (an umbrella agency superimposed on a loose aggregation of 18 departments, boards, and commissions), who joined the Brown administration in 1977. Johnson is a good, if unusually flamboyant, example of the kind of people whom Brown attracts and to whom he lends his ear.

A bouncy, voluble individual, Johnson had founded and headed the innovative and successful Trust for Public Land, an organization similar to the Nature Conservancy except that its efforts have been directed largely at preserving open space and natural areas in and near urban environments. Johnson likes to stir things up, and recently he has been jawboning to encourage the U.S. Forest Service to do a better job of involving the public and local government in the classification of its land for wilderness preservation and other purposes. Also, no less than Brown himself, Johnson is given to the symbolic gesture—as when,

in a cabinet meeting last summer, he proposed a toast to the snail darter.

(In this game of symbolic gestures, Johnson may have come out second best last January, when he sent each member of the Energy Commission a carnation and a message of congratulations after their decision in the Sundesert case. Alan D. Pasternak, the one member who had dissented, returned the carnation with the message: "Flower power is no substitute for nuclear power.")

Johnson makes a serious political point by pressing upon all and sundry the view that no government program, and no tax-supported institution, will long flourish unless the mass of urban voters, the dominant force in California politics, can be made aware of its value. This "awareness" doctrine, which comes naturally to the governor himself, is a key to the urban strategy and also explains Brown's quick decision not to waste political capital bucking the voters' verdict, in the plebescite on Proposition 13, that government was costing them more than it was worth.

Some of the Brown administration's approaches to energy and resource management seem more consistent with the idea of limiting the growth and cost of government than do others. Its emphasis on energy conservation and its approach to alternative energy technologies, for instance, do seem in keeping with that idea.

### Brown and the University

Governor Brown's attitude over the past 4 years toward the gigantic University of California system seems to have been that of a caustic but not terribly unsympathetic overseer. He has, on occasion, derided the university with remarks such as "never has education been more irrelevant to more kids." He has objected to some university salaries as too high, and said that nobody, not even the university president, should make over \$50,000 a year.

He has also made some unusual appointments to the Board of Regents, including that of Verne Orr, a conservative Republican who was Governor Ronald Reagan's finance director, and of Gregory Bateson, the free-wheeling British-born psychiatrist and philosopher who has said that the university is turning out students who "perpetuate our way of life, and on the whole aggravate its pathologies, its greed, its hatred of nature and its hatred of intellect."

However unsettling this kind of thing may be to university officials, when it comes to the bottom line, the budget, Brown has not treated the university all that badly. In fact, the budget of more than \$784 million in state funds which the governor first approved for the university this year was considered to be fairly generous. Later, over \$31 million was lopped off by the legislature and the governor, most of it after the passage of Proposition 13.

Adequate budget support for the university may be in doubt in the future, and between campus and statehouse there are differences of perspective on research priorities that need reconciling. On this point, the governor's secretary of resources, Huey Johnson (see story), comes to the academy bearing a stern message. It is simply that the legislature's support of the university is likely to become increasingly uncertain unless its research activities are shown to be responsive to public needs.

"I have been shocked to find out how little information is available to me from the 100 years or more of research that has been going on in the universities of our state," Johnson says.

The question of the university system and state research needs came up in the interview this reporter had with Brown on 3 November—an interview which Johnson arranged and took part in. Brown was asked whether he was satisfied with university research programs in light of his agencies' needs.

"I think the state government has little knowledge of what research is being done in the universities," Brown replied, adding that the flow of information is principally between the university researchers and the federal agencies that support their work. "The universities will have to focus more on the needs of the state," he later observed, however.

At this point, Johnson spoke up. "I would like to see 25 percent of the university research funds devoted to applied research," he said. (As Johnson later acknowledged, he really did not know what proportion of research funds was already being spent on applied work or exactly what proportion should be so used. He was merely expressing the feeling that, whatever the present investment in applied research, too little is directed at resource management.)

"That's a Johnson proposal," Brown commented with a smile. For him to tell the university how its research funds should be allocated, Brown said, would be immediately denounced as an infringement on academic freedom.

The governor said that the California Policy Seminar, which was established by president David S. Saxon of the university system in 1977, should facilitate exchanges of information between state officials and university researchers. As it happens the governor's two representatives on the seminar (half of whose 18 members come from the state government and half from the university) are Johnson and Brown's science adviser, Rusty Schweickart.

The seminar is intended primarily as a mechanism for the review of policy research proposals from faculty members and for the selection of several each year for funding by the university. It was set up as the university's defensive reaction to a proposal for a public policy research foundation which was put forward by the legislator who chairs the Assembly subcommittee that handles the university budget. The foundation board, to have been made up of state officials, university people, and other citizens, would have had the authority to earmark money in the university budget for research it deemed to be needed, whether the university liked it or not.—L.J.C.

Conservation has to rank as an imperative of California energy policy given the nuclear moratorium, the national policy to reduce consumption of oil and natural gas as boiler fuels, and the pollution problems associated with the burning of coal. In this field, progress is being made through the exhortations and regulations of the Public Utilities Commission (PUC). The PUC, a majority of whose members are Brown appointees, is pushing conservation in the knowledge that to save a kilowatt-hour of electricity (or a therm of natural gas) is cheaper than to produce one. Changes in electricity and gas rate structures have been made to that end, as in the elimination of declining block rates for big industrial users.

According to Claire Dedrick, a member of the PUC, the results are gratifying. "It's working," she says. "We are making savings." In 1977 consumption of electricity was up only 3 percent from 1976, half the historical growth rate; gas consumption was actually down 10 percent. Other conservation measures include requiring utilities to reduce line voltage 5 percent. "Nobody even notices the reduction," says Dedrick, yet 3 million barrels of oil were saved in 1977 from a 3 percent reduction in voltage.

An especially attractive thing about this kind of conservation program is that it requires no large commitment of state tax money or staff, but only forceful leadership and direction. Moreover, the potentialities for still further energy savings are large, such as through policies that would encourage (or require) homeowners to insulate their dwellings and lead utilities and industries to go to cogeneration.

The Brown administration's twofold strategy for promoting solar technology is also one that does not require a big. costly bureaucratic effort. The first strategy is the familiar one of offering homeowners and businesses substantial tax credits for their investment in solar equipment. In fact, the 55 percent tax credit available to homeowners (the federal tax credit will now make up part of the state credit) has been exceptionally generous and is expected to give the state a powerful boost toward its goal of having 350,000 solar units installed by 1981, compared to the some 25,000 that exist today.

The second strategy is to have a variety of state agencies go to the private groups and interests with which they customarily interact and talk to them, in their own language, about the advantages of solar technology. The office of the state architect talks to private architects and community planners, the Ener-

954 SCIENCE, VOL. 202

gy Commission and the PUC talk to the utilities, the Department of Housing and Community Development and the Business and Transportation Agency's new "SolarCal" office talk to home builders, and so on.

The idea, according to the governor's energy advisers, is to make the promotion of solar and other alternative energy technologies the concern of all relevant agencies and to avoid the highly centralized, super-department approach followed in Washington. It is too early to say whether this diffuse effort will be a success, but that there can be advantages in having a number of more or less independent centers of initiative is obvious. With the passage of Proposition 13, plans for a state energy development authority were canceled, thus eliminating \$50 million in alternative technology projects, such as one to build 10 experimental windmills for electric power generation. "But because of its decentralized nature," says Wilson Clark, "the state energy program was not hurt too badly. If the same thing happened to the [federal] Department of Energy, it would be dead in the water."

Not everything in Brown's record on energy and resource management issues squares with his avowed commitment to frugality and limited government. One exception has been his support of multibillion-dollar water projects while failing to confront California agricultural interests-who account for 85 percent of all water consumption—on the issue of water conservation. Under present water pricing policies, agricultural users receive massive subsidies that act as a disincentive to the adoption of farming and irrigation methods that conserve water. According to the California League of Conservation Voters, "the official Brown line seems to be that substantial water conservation in the agricultural sector is impossible.'

If Brown is weak on water conservation, he is strong on conserving his political capital and this doubtless explains why he has avoided a clash with the agricultural interests of the central valley and southern California and the water districts and local governments allied with them.

Political expediency can be represented as a virtue, as Huey Johnson does in

saying of Brown, "His aim is to stay elected and allow the rest of us to do our thing." Yet on particularly difficult issues, of which the water issue is certainly one, only the governor may have prestige and influence enough to bring about major policy changes.

There have been signs that the Brown administration may move more forcefully on the water issue during the governor's next term. Conservationists took particular heart when Johnson, who had not been as active on the water problem as on other resource issues, dispatched a telegram urging the California congressional delegation to vote to sustain President Carter's veto of the water projects bill

As the newly reelected governor of California, Brown is now in a position not only to decide state policy but to influence national policy in a number of important fields, with his opportunities being especially great in the fields of energy policy and resource management. Clearly, Brown already has made a difference, and the mark he leaves over the next 4 years could be very large indeed.—LUTHER J. CARTER

# Universities "Battered" by Federal Regulators

Jerome B. Wiesner, the president of Massachusetts Institute of Technology and former science adviser to Presidents Kennedy and Johnson, feels "like a battered child" because he believes the government is mistreating the big research universities. That was the message he gave the annual meeting of university research administrators on 9 November in Washington, D.C. Academia has done nothing to provoke the government's hostility, he claimed. Something else has happened to transform what was once the kindest sponsor of basic research into a cruel stepfather.

The government's change of heart has made it more tightfisted with research funds, Wiesner said, but that is only a small part of the problem. What really brought him to a boil was the government's intrusion into what he considers the privacy of his home turf—the internal management of the university. His complaints echoed those of his counterparts in private industry; several times

he referred to the latest federal regulations as "repressive." Wiesner told the gathered administrators that it was wrong" for Congress to limit the amount of money a university might want to pay one of its professors. (Applause.) He said, "The federal government is putting its nose into parts of our life where it doesn't belong. This is bad for us and bad for the country." (Loud applause. Someone shouted, "Hear, hear!") The basic "federal-academic relationship . . . is floundering," Wiesner warned, because the government has dropped its "attitude of understanding, encouragement, and support" adopted a hostile view which sees universities as "purveyors of products, to be held accountable by the standards of trade and commerce.'

Wiesner's talk was dire, so much so that one person in the audience joined in the lament by suggesting that the universities should stop doing business with the government if the atmosphere does not

improve. This sounded like a threat to go on strike. The situation is not quite as bad as that. In fact, the furor seems to have been provoked by a rather mundane spat over money policy, rooted in a decision by the White House to tighten up the accounting rules that are used to monitor research contracts and grants. The universities and the government have quarreled sporadically over this issue for at least a decade. Now a major revision is about to be made, a change which federal officials see as necessary and benign, but which Wiesner views as the worst item in a series of recent insults directed at academics.

Wiesner ran down a list of federal actions he did not like: regulations putting limits on faculty salaries, costly new rules for laboratory animal care, the unpredictable and formula-ridden way in which grants are administered, and the random and "almost despotic" commands that come from Congress, such as the order that government-aided medical schools open their doors to students who were trained abroad. But the most important item on his list was the proposed revision of Office of Management and Budget (OMB) circular A-21.

Stripped of particulars, A-21 tells government agencies how to administer grants and guides accountants in deciding which kinds of university expenses