All these factors were illustrated by another American mathematician in 1962. Good planning, a knowledge of Russian, no-nonsense persistence, and his earlier personal acquaintances got him most of what he wanted. One old Soviet friend was so embarrassed and intimidated by sanctions against him that the friend shunned him, but other Soviet colleagues committed a "deliberate violation" of official restrictions on his movement in order to fulfill the demands of personal and professional pride.

Soviet Pride

Pride is perhaps the most common quality which American scientists have detected in their Soviet colleagues. Premier Khrushchev stated an aspect of it in 1956: "The country's growing authority abroad is reflected in the flood of foreign delegations coming here." One Russian complained of the way in which his name had been transliterated for the American edition of his book. Another pronounced himself miffed that a Chinese translation of his book had come out 1½ years before the English edition. But to most Americans, the Soviets have been "hungry for news of the outside world" and have shown an "all-consuming curiosity." They have sought the honest and kindly critiques of American visitors and have shyly wanted to test Soviet science against American standards.

"There is no doubt that the Russian colleagues learned a great deal from conversations with us," wrote one American. A Soviet group impressed another visitor, chemist Paul Doty of Harvard, with its "high standards (and) ready acceptance of non-Russian discoveries." Doty, who has had extended experience with Soviets, also said this: "Surely the accessibility of at least a part of the Russian scientific community to normal contacts with Western scientists and the relatively large extent to which their thinking is not limited to ideological criteria should be recognized as a bridge over which understanding may be expanded." In scientific terms, the overall pattern has suggested to one close observer that exchanges convey "a rough estimate of the current state of basic science in the Soviet Union, a knowledge of the relative competence of the main centers, a sense of the trends in Soviet research and the rate at which future progress can be expected. Yet it is evident that only a small part of the scientific activity in the U.S.S.R. is immediately relevant to American work and even here the interaction has not yet for the most part reached the point of providing that mutually beneficial acceleration of research that must be the ultimate aim of scientific contact." Harold Zirin decided after his research stint that it was "worth the time and effort. I accomplished a certain amount of scientific work, and we had an unparalleled opportunity to learn about Russian life. Further, it was another small crack in the Iron Curtain."

Precisely here, at the point where personal experience takes on a political coloration, is where exchanges end. They add various degrees of awareness and sympathy, information and insight, to the participants and governments on both sides. But only those who believe—against a depressing amount of evidence to the contrary—that soluble misunderstanding is the cause of the cold war, ask exchanges to perform missions normally undertaken by politics and diplomacy, and by time. Yet exchanges kindle a small flame without which civilized life cannot go on. For all their snarls and frustrations, they set up tremors of personal and professional vibration which cut across the tensions of political difference. Exchanges finally look to the day when, as is now the case with our friends, there will be need for none.

News and Comment

Tobacco: Administration Showing Little Enthusiasm for Follow-Up on Public Health Service Report

Following release of the Surgeon General's report *Smoking and Health*, a story went around about a man who saw a film on the removal of a cancerous lung. "After I saw that," he said, "I decided to give up going to the movies."

It may not be accurate to say that the Johnson administration shares that moviegoer's sense of reality on the relationship between tobacco and health. After all, matters of greater import than tobacco have demanded the President's attention during the 11 weeks since the report was first issued; and, since it is thought to take years for the weed to work its evil, a few weeks' or months' delay in government action probably does not mean very much. Nevertheless, on the basis of what has happened so far, it is a short step to the conclusion that the White House has no appetite for displeasing the half-dozen southern states that share heavily in the $8-billion-a-year tobacco industry. And though Surgeon General Luther L. Terry was kind enough to assert, "I am not among those who believe that the tobacco industry has a dollar bill for a conscience," the industry, since the publication of *Smoking and Health*, has frequently performed in a fashion that suggests that Terry is a very charitable man. Events to date also suggest that, while the Public Health Service has been discreet and precise in its statements about tobacco and health, the current administration is not at all exultant about the intrusion of the government's medical service into the political jungles of tobacco. There is nothing to suggest, however, that Kennedy would have felt any more comfortable with the PHS's report. Politically, he was in far worse shape in the tobacco states than Johnson;

and he prodded the PHS into the tobacco study only after the cries of voluntary health organizations had become embarrassingly raucous.

Since publication of the report last 11 January, Johnson has had a number of opportunities to lend the prestige of the White House to the PHS committee's findings, but in each instance he has refrained from offering even faint praise. The President's Health Message of 10 February ranged over a wide variety of health problems, from medical care for the aged to narcotics and drug abuse, but failed to say a word about tobacco.

On 8 March, in reply to a question at a news conference, the President stated:

> I don't think that the [Surgeon General's] report has been made a government report as yet. I understand it's a committee that was appointed by the Surgeon General with the understanding that, when they made their recommendations, probably a report would be submitted to all the departments of the government concerned, and that would be the second procedure followed, and they, in turn, would carefully digest and study its recommendations, and then back to the Secretary of Health, Education, and Welfare. The government agencies concerned are now making that study, and in due time will make their recommendations.

Again, on 16 March, in a televised interview with representatives of the major networks, a questioner noted that the President had given up smoking (something he did after a heart attack in 1955). "Have you any advice for those of us who haven't managed?" Johnson was asked. In reply, he stated:

> I gave up cigarette smoking because the doctor recommended that I do so, and I have missed it every day, but I haven't gone back to it, and I am glad that I haven't.

All of which makes the PHS something like the honest cop who shouts "Stop, thief," only to find headquarters patiently explaining to him that these things are far more complicated than he could ever possibly understand.

Status of Report

At the moment, as the President suggested, *Smoking and Health* represents the position of no more than a piece of the U.S. Government, the PHS, which entrusted the report's preparation to an advisory committee and later formally accepted the committee's findings. Now, under procedures which apparently will be followed to the extreme, the report has been forwarded to all major government agencies for their consideration, and when they have had their say, the results will be sent to the White House for evaluation. An impression of a limited sense of urgency arises from the fact that it was 2 months after the report had been made public before the PHS's administrative superior, the Department of Health, Education, and Welfare, formally dispatched copies to other branches of the government. No deadline has been set for the return of comments.

Meanwhile, as the Federal Trade Commission held hearings last week on a move it has long wanted to make—that of requiring warnings on cigarette packs and in cigarette advertising—it was revealed that the tobacco issue has provided Washington with some of its strangest bedfellows. It was to be anticipated that the industry would bring up every conceivable argument against FTC intervention, and it did, arguing that the FTC is seeking to exceed its statutory authority, that the industry should be permitted to police itself, and that if any restrictions are required, they should emanate from that old briar patch known as the U.S. Congress. All par for the course.

AMA Position

What was surprising was that the American Medical Association came out four-square on the side of the industry, offering some of the most chop-logic propositions to be heard in these parts for a long time. Noting that the AMA "has, historically, endorsed and promoted federal and state legislation containing labeling requirements with respect to the sale of drugs, cosmetics and hazardous household products to consumers," AMA executive vice president F. J. L. Blasingame went on to state that labeling of these products "serves to convey information to a consumer who might otherwise be uninformed as to the risks inherent in a particular product. . . . With respect to cigarettes, cautionary labeling cannot be anticipated to serve the public interest with any particular degree of success. The health hazards of excessive smoking have been well-publicized for more than 10 years and are common knowledge. Labeling will not alert even the young cigarette smoker to any risks of which he is not already aware."

This argument may or may not match the facts, but it is indisputable that the general public takes very reluctantly to the news that cigarettes are harmful, and indisputable that reductions in cigarette consumption seem to come about only when the message is incessantly hammered home. The Surgeon General's report contained nothing that hadn't been said many times previously, but the public attention it evoked was followed by sharp declines in cigarette sales across the country. (In the District of Columbia, for example, cigarette tax receipts for February were down 30 percent, compared with the same month last year; Virginia experienced a 15.6-percent drop, and Maryland, a drop of 9.4 percent.) While labeling alone may not be the answer to the problem of reducing cigarette consumption, it is difficult to see how—if a reduction is desirable—it would not be served by one of the FTC's proposed warnings: "Caution: Cigarette smoking is dangerous to health. It may cause death from cancer and other diseases."

However, as far as the AMA is concerned, "research" is the answer, and, for this purpose, the AMA Educational and Research Foundation is to be the recipient of what has been described as an unencumbered $10-million grant from the major tobacco companies. As Blasingame told the FTC, "It is the thinking of the [AMA] Committee for Research on Tobacco that grants will be made soon to proven investigators who have time and facilities available to begin promptly on studies that are needed and which appear to be productive of helpful information. The American Medical Association hopes to be instrumental in obtaining many of the facts which are necessary to an intelligent and useful understanding of this subject."

Uncharitable interpretations of the AMA's motives come readily to mind, and Representative Frank Thompson, Jr., (D–N.J.) didn't lose any time in laying them before the public. The AMA's position, he charged, is an "outrage" and an "obvious plot" aimed at enlisting the tobacco states in the AMA's campaign against federally financed medical care for the aged. To which the AMA replied, "It's a ridiculous charge. There is not any truth in it whatsoever."

Industry Representative

Faced by the most dangerous attack in its history, the tobacco industry has taken steps to be well represented both inside and outside the hearing room, and has engaged the services of two old Washington hands who are now

considered to be "in" as a result of the change of administration. Formally signed up as a lobbyist for the six major tobacco firms is none other than former Senator Earle C. Clements of Kentucky, who was No. 2 man in the Democratic majority when Lyndon Johnson was Senate majority leader. Clements served as Johnson's campaign coordinator in the 1960 election. His daughter, Bess Abell, is appointments secretary to Mrs. Johnson, and his son-in-law, Tyler Abell, was recently appointed by Johnson to serve as an assistant postmaster general. In addition, Philip Morris, Inc., has engaged the services of the law firm of Arnold, Fortas & Porter, Fortas being Abe Fortas, who is a longtime friend and close adviser of the President.

While these developments have been taking place, the House of Representatives has been the scene of a curious legislative snarl concerning tobacco. Since "research" appears to be the principal path to salvation, the tobacco states quickly responded to the Surgeon General's report by proposing a $10-million research effort that presumably would look into such things as safer filters and carcinogen-free tobacco. The research program was quickly voted out of committee, but when it came to the Rules Committee to be scheduled for a floor vote, a coalition of liberal Democrats and Republicans blocked action. They were not against research, it appeared; rather, they were incensed that the very same Agriculture Committee that had promoted the proposal had earlier turned down a liberal-backed proposal for a food-stamp plan for the needy. Give us our stamp plan and we'll give you your tobacco research, was the message. Subsequently, the Agriculture Committee developed favorable sentiments toward the stamp plan, and it is now reasonable to expect that the Rules Committee will develop favorable sentiments toward the tobacco-research plan.

Meanwhile, those advocates of self-policing—the tobacco companies themselves—have been adjusting their advertising to the peculiar requirements of an industry that, in effect, has been branded a public health menace. The most ingenious outgrowth of this process has been a nationwide campaign which proclaims:

> No medical evidence or scientific endorsement has proved any other cigarette to be superior to Kent.

—D. S. GREENBERG

SLAC: Stanford-AEC Accelerator Is Coming Along on Schedule, But Creating Some High Tension

The most expensive piece of research apparatus financed to date by the federal government is now under construction on a 2-mile (3-kilometer) strip of Stanford University land. When it is completed, the Stanford Linear Accelerator (SLAC*) will be the most powerful electron accelerator in the world and, in testimony to the increasingly high price of high energy physics research, will have cost at least $114 million.

SLAC, which is scheduled to go into operation in 1967, will give physical scientists an important new tool to use in examining the fundamental constituents of matter. It is hoped it will also enable them to create new elementary particles. In the meantime, the advent of SLAC has raised speculation at Stanford about the long-range effect on the university's academic equilibrium of a big machine with an annual operating budget roughly equal to Stanford's current annual expenditure on instruction. A more immediate problem is a controversy over the route and style of the power supply to the accelerator.

SLAC will need a prodigious amount of power—the annual electric bill will run an estimated $1.5 to $2 million—and will have to get most of it from a new Pacific Gas and Electric Company loop line which runs through the relatively undeveloped hills west of the university.

The proposed tap line to the accelerator would run through choice rolling, wooded, countryside. Many citizens of the area and especially of Woodside, an extremely pleasant exurban community through which the line would run, saw the overhead power supply as an affront to esthetics, a defeat for conservation, and a threat to property values.

The university itself has not been directly involved in the conflict. The Atomic Energy Commission will own the accelerator, which Stanford will operate under contract, and has the responsibility for insuring that power is provided.

In January of 1963 the AEC contracted with the Pacific Gas and Electric Company for construction, operation, and maintenance of a line to meet the project's rather modest power requirements during the construction period and also for a 220-kilovolt tap line running from the company's primary feeder along the mountain ridges to the west to supply the accelerator's operational needs.

Last June PG&E applied to the Woodside planning commission for a permit to construct an overhead transmission line.

The planning commission, with strong community backing, turned down that proposal and another one suggesting a somewhat longer line along the route of a proposed new freeway. The latter alternative included the possibility of running the lines on tubular metal poles rather than on the higher and more obtrusive towers conventionally used for such lines. The company later proposed, to both the Woodside and the San Mateo County planning commissions, use of the tubular poles on the original overland route, but was turned down, again on esthetic grounds.

Overhead versus Underground

Opponents of the overhead line argued that the 5 or 6 miles of tap line should be run underground. Accelerator planners said they needed a 300-megawatt power supply to satisfy foreseeable maximum needs for SLAC. Overhead lines on towers would cost an estimated $668,000, and a line on the comelier poles would cost about $1 million. Undergrounding would raise the cost of a 180-megawatt line, which would meet the power needs of the accelerator until about 1970, to an estimated $2.6 million. It would cost about $3.6 million for a 300-megawatt line underground.

A bargaining period ensued. PG&E declared itself willing to make available something over $1 million to finance the freeway-route line rather than the $668,000 for the original route. The AEC offered to contribute $220,000 toward putting the line underground if this meant no future additions to power bills and no other strings attached. The town of Woodside voted to tax itself extra in order to provide $150,000 for the undergrounding project. But a gap of more than $2 million remained, and this gap was not to be closed.

The Stanford trustees expressed sympathy with the idea of an underground line and asked the AEC to reconsider its stand on financing such a line. But the trustees declined to contribute Stanford funds to help pay the price. In a statement disposing of the subject the trustees said they had "always made it unequivocally clear that the university cannot justify devoting its own funds, held in trust for other educational pur-

*Pronounced "slack."