

When he has confronted some officials whom Fang believes privately sympathize with him, they respond, "Zemne shuo? [What can I say?]"

Barring his travel overseas, Fang said, creates "a bad situation for research and Chinese astronomy."

His travel within China is also restricted to prevent him from broadening his base of support among students and intellectuals. Government officials have prohibited Fang from returning to Hefei where he has a strong following among students and intellectuals. Recently, on the way to attend a scientific meeting in Suzhou near Shanghai, three party members intercepted him at the Shanghai train station and drove him to Suzhou. They "were afraid I'd stop in Shanghai" to meet with students at the major universities there, Fang said. When he got to Suzhou, skittish officials at Suzhou University told him he could not attend a dinner on campus with students. Actions like these taken against him are "a lot of harassment," Fang said.

Fang is encouraged that he has the backing of some members of the Chinese Academy of Sciences. He noted with enthusiasm that in February, he and nine other academy members sent a joint letter to Deng requesting the release of political prisoners.

But Fang said it is hard to discern the extent of underlying support for him among the academy's senior leadership. The academy is headed by Zhou Guangzhao, a member of the Central Committee and, like Fang, is a theoretical physicist. In fact, Zhou was Fang's teaching assistant when he was a student at Beijing University. It was Zhou who fired Fang from his university post in Hefei. But it was also Zhou who arranged a five-room apartment in Beijing for him. That is spacious by Chinese standards.

Fang wrote in the 2 February issue of the *New York Review of Books*, "As democratic consciousness spreads, it is bound to form pressure groups that will have ever greater power to weigh against the authority of the leadership" in China. However, though it is burgeoning, the human rights movement in China is still in its infancy.

Fang said, "The dissident movement is stronger in the Soviet Union. Until 2 years ago, the issue of human rights was too sensitive a topic to discuss at all" in China. Unlike the Soviet Union, "there is no underground newspaper here. There is no great connection among dissidents and no organization." The human rights movement in China is also significantly weakened because the Cultural Revolution created a "lost generation" of poorly educated individuals who are now in their 30s and 40s, he said.

But, Fang added, "more and more people

are becoming outspoken." Indeed, since the beginning of the year, in a politically bold move, some of China's leading scientists and artists have signed several letters advocating human rights and political reforms, which have been sent to top government officials. Fang noted with great satisfaction that more than 70 Chinese intellectuals signed two petitions sent last month to the National People's Congress that called for the release of political prisoners (for which there is no reliable count, Fang adds).

In recent weeks, however, the government has taken a firmer line against political dissidents. Authorities confiscated from a visiting Hong Kong delegation a petition with 24,000 signatures calling for the release of political prisoners, refused the entry of one of the six delegation members who were on their way to deliver the petition to the National People's Congress in Beijing, and expelled from China a prominent young political activist and writer Chen Jun.

A top party official also dampened hopes that China's most famous dissident in China itself, Wei Jingsheng, will be released from

jail soon when he said last month that there is no need to grant special pardons to prisoners this year, which is the 40th anniversary of the founding of the People's Republic of China. Wei, a former Red Guard, was the leading figure in the pro-democracy movement in China at the time of his arrest in 1979. He is serving a 15-year sentence, although his whereabouts are unknown and there is some question of whether he is even alive.

Despite the enormous political challenges ahead, Fang remains spirited. He said that one of his strongest motivations to press for change comes from his conviction that "scientists have a responsibility for the direction of a country." So Fang continues to meet frequently with Western journalists and other foreigners as a way to maintain his international connections and visibility. Although he cannot go out of the country, at least many people can still visit him.

When asked what foreign scientists can do to help him and his cause, Fang paused and said, "Signing letters is the best, the only way to help right now." ■ MARJORIE SUN

WHO Seeks Global Data on Sexual Practices

The organization is about to launch a survey that could provide important clues to the spread of AIDS

THE WORLD HEALTH ORGANIZATION will soon begin asking Belgian housewives, Greek sailors, and Ugandan truckdrivers about their sex lives. Their answers will become part of a global survey of human sexuality, the first ever attempted.

WHO officials and scientists collaborating with the international health agency say that the study, which will span at least 20 countries, will help untangle one of the lingering mysteries of AIDS: why is there such variation in the spread of the AIDS virus among different populations?

"In AIDS, we tend to put people in categories: gay, straight, or whatever," says Paul Abramson, a psychologist at the University of California at Los Angeles who is serving as a consultant to WHO. "But AIDS is not a gay disease. Maybe, though, it is a disease that involves trauma to the rectum or sexually transmitted diseases or genital lesions. There might be some common element that runs through all the epidemics. This survey will help us sort that out."

Researchers also believe the information

is crucial for combating the spread of AIDS and other sexually transmitted diseases, especially in poor countries that cannot afford the kind of well-funded public health campaigns that have been launched in Europe and North America.

"Had we had more information about human sexuality, more knowledge about trends and practices, we would have been able to intervene with AIDS in a much more rigorous and intelligent way," says Manuel Carballo, who is heading up the survey effort for the WHO Global Program on AIDS in Geneva.

Scientists here and abroad note that it is ironic that the Third World is ready to go with a study on sexual behavior, while in the United States a long-awaited national survey on sex has become mired in politics (see box).

The Netherlands, Greece, Senegal, Ivory Coast, Belgium, Nigeria, Kenya, Uganda, Thailand, Brazil, Costa Rica, and Sri Lanka have agreed to do the survey. By summer, the WHO hopes to have interviewers asking

questions in 20 countries in the developed and developing world.

Despite a warm reception in some countries, the project faces considerable obstacles. The survey will probably not find its way into many of the nations that participate in the WHO. For instance, it is doubtful that conservative countries in the Middle East will participate, though Carballo says that Egypt has expressed an interest. In other parts of the world, such as the Sudan or Burma, health surveys are just not possible because of unstable governments or civil war.

Language poses another problem. Not only must the questions be asked in the world's major languages, the survey must be translated into dozens of cultural and tribal dialects. Will the questionnaire work the same way in Sinhala as it does in Swahili? In Nigeria alone, for example, the survey may have to be translated into ten languages. All these questions must then be back-translated into English to make sure nothing was garbled in the process.

Although many countries routinely survey their citizens about health or economics, Carballo and his colleagues must also contend with the fact that some countries do not have lists of citizens from which to draw a scientifically valid random sample, in which each adult in a country has the same probability of being interviewed as his neighbor down the road.

Yet Charles Westoff, director of the Office of Population Research at Princeton University, says he is optimistic about the survey's chances of success. Westoff is not connected to the WHO survey, but he and his colleagues recently completed the World Fertility Survey for the United Nations, in which married women were asked about contraception and child-bearing. Says Westoff: "We got good samples and good response rates."

Westoff believes the greatest unknown lies with the veracity of the subjects and their willingness to answer such intimate queries. Will women underreport their sexual activity? Will young men brag of conquests that never occurred?

"Perhaps there is some universality of man after all. We are the only animal who can have the truth in our head and a lie on our lips," says Lawrence Adeokun, a demographer from Obafemi Awolowo University in Ile-Ife, Nigeria, who is serving as a consultant for the WHO project.

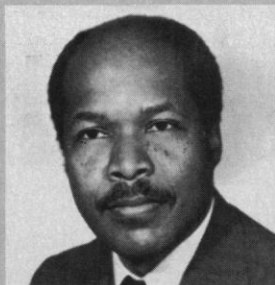
To deal with this most human trait, Adeokun says that the research team will be conducting interviews with small numbers of key informants to double check the validity of the data being reported.

The survey will be taken into the field by

U.S. Probe Meets Resistance

Well-thumbed copies of a proposed survey on the sexual life of America have been bouncing around the federal health bureaucracy for months, as one scientific censor after another has scrutinized the document and pondered the political impact of asking detailed questions about sexual practices.

The 60-minute questionnaire, developed by a project sponsored by the National Institutes of Health, was recently returned to the new Secretary of Health and Human Services Louis Sullivan for a final look-see. Sullivan got the hot potato from Richard Darman, director of the White House Office of Management and Budget, who found that OMB did not "have the authority at this point to stop the proposed study under the Paperwork Reduction Act," the legislation that requires that all surveys supported by federal contract go through OMB.



Louis Sullivan

Sullivan now must decide whether or not NIH really needs to know how Americans spend their private time. There is fear among the researchers associated with the project that the survey will be eviscerated by Sullivan, who is being pressured by conservatives to tone down the questionnaire.

Indeed, many possible deletions have already been suggested by NIH. Researchers who care about the study suspect that the survey may be restricted to only asking questions about high-risk behaviors directly linked with the transmission of AIDS. As it stands now, the questionnaire attempts to answer broad questions about human sexuality (*Science*, 20 January, p. 304).

In Congress, enemies of the study have characterized the government-sponsored project as an Orwellian intrusion into the sanctity of the American bedroom. Representative William Dannemeyer (R-CA) called the proposed questionnaire "pornographic."

Proponents of the study, who include a blue-ribbon panel of social scientists advising the National Research Council, say information on sexual practices is vital for predicting and perhaps even mitigating the spread of AIDS and other sexually transmitted diseases in the United States.

The proposed survey would be the first to gather together a truly representative sample of American adults and ask them how many sexual partners they have had, what they did with them, and what they thought about what they did with them.

In a statement released by his office, Sullivan says that he supports a survey which would "assist in containing the spread of infection by the AIDS virus," but added that "it is important that the survey gather only data which is essential to public health needs. My initial review of the survey instrument does indicate to me potential problems with the tone and contents of the questions."

In a pilot survey, 2000 citizens would be queried. In the larger study to follow, some 20,000 Americans would be interviewed at a cost of about \$15 million. The principal investigators are Edward Lauman of the University of Chicago, Robert Michael of the National Opinion Research Center, and John Gagnon of the State University of New York in Stony Brook. They have all been put under a gag order, pending a ruling by Sullivan.

■ W.B.

indigenous researchers familiar with the cultural taboos of the host country. This is crucial, since a Brazilian stockbroker and a Masai herdsman are probably going to harbor different ideas about what constitutes the proper way to ask about sex.

For example, in some regions in Nigeria, polygamy is common, so it is essential to frame questions in a way that the locals can understand. "If one asks a man how many women he had sex with in the last month, and the chap says four women, you cannot assume that the man is promiscuous since all

four women might be his wives or regular partners," says Adeokun.

The survey will be asking men and women about their sexual partners and practices. There will also be inquiries about religion, education, and condom use, as well as measures of knowledge and attitudes about AIDS and questions about premarital and extramarital sex, including such zingers as: "Do you think your wife (or husband) has had casual sex with someone else in the last 12 months?" That may be a tough one to ask in any language.

■ WILLIAM BOOTH