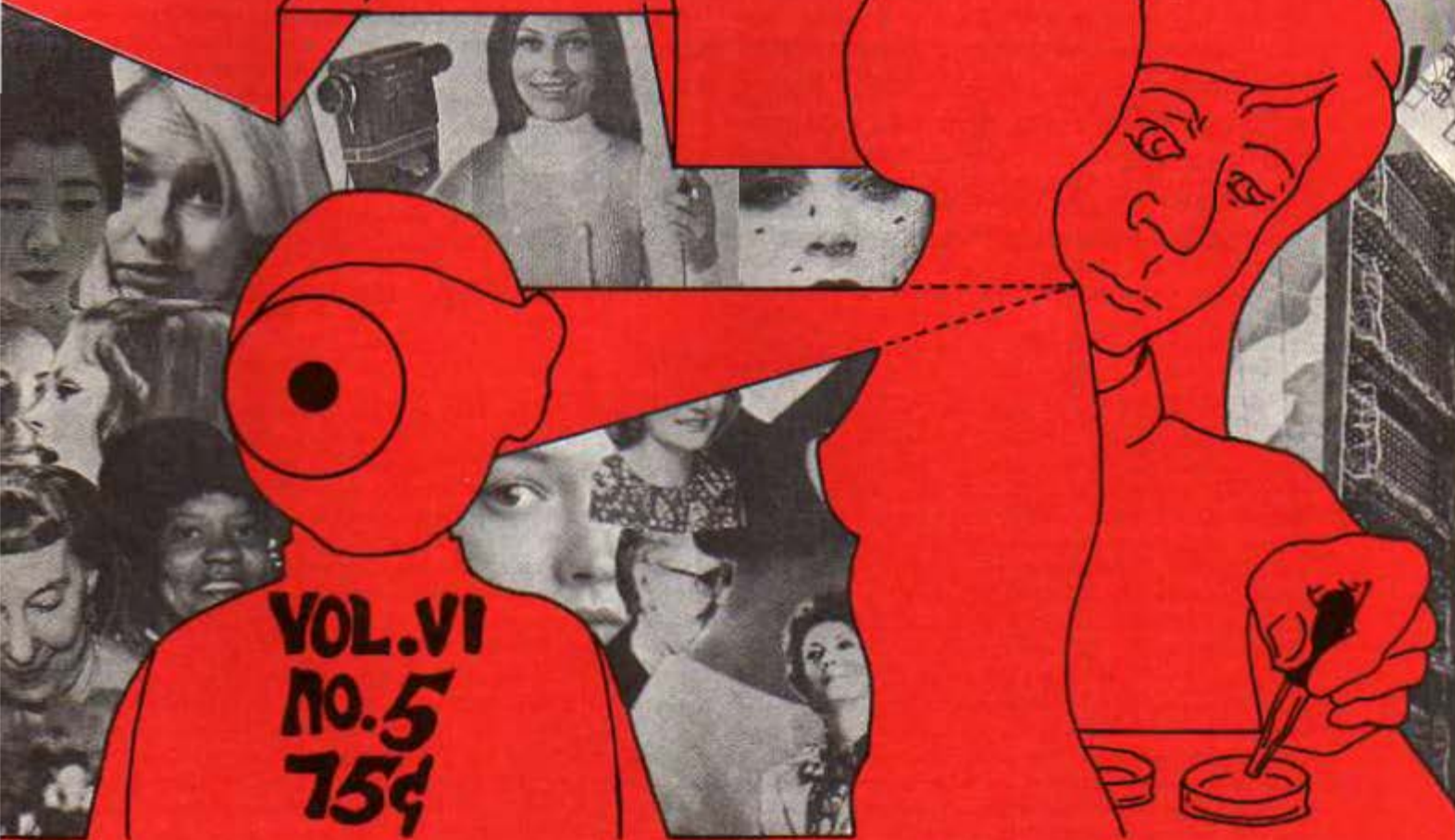
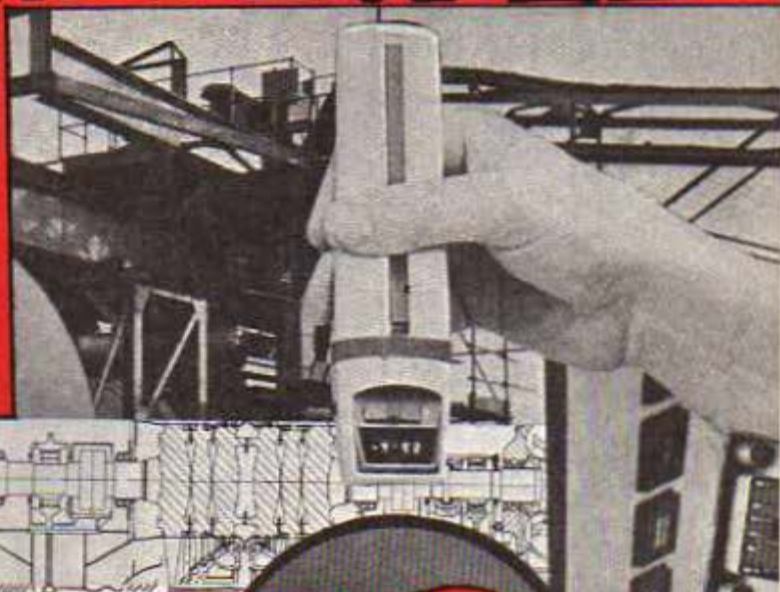


SCIENCE FOR THE PEOPLE



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INSIDE

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EDITORIAL PRACTICE

Each issue of *Science for the People* is prepared by a collective assembled from volunteers by the magazine coordinating committee. A collective carries out all editorial, production, and distribution functions for one issue. The following is a distillation of the actual practice of past collectives. Due dates: Articles received by the first week of an odd-numbered month can generally be considered for the magazine to be issued on the 15th of the next month. Form: One of the ways you can help is to submit double-spaced typewritten manuscripts with ample margins. If you can send six copies, that helps even more. One of the few founding principles of SESPA is that articles must be signed (a pseudonym is acceptable). Criteria for acceptance: *SESPA Newsletter*, predecessor to *Science for the People*, was pledged to print everything submitted. It is no longer feasible to continue this policy, although the practice thus far has been to print all articles descriptive of SESPA/Science for the People activities. Considerably more discrimination is applied to analytical articles. These are expected to reflect the general political outlook of *Science for the People*. All articles are judged on the basis of length, style, subject and content. Editorial Procedure: The content of each issue is determined by unanimous consent of the collective. Where extensive rewriting of an article is required, the preference of the collective is to discuss the changes with the author. If this is not practical, reasons for rejection are sent to the author. An attempt is made to convey suggestions for improvement. If an article is late or excluded for lack of space or if it has non-unanimous support, it is generally passed on to the next collective. Editorial statements: Unsigned articles are statements of the editorial collective. Opportunities for participation: Volunteers for editorial collectives should be aware that each issue requires a substantial contribution of time and energy for a twelve-week period. Help is always appreciated and provides an opportunity for the helper to learn and for the collective to get to know a prospective member. There are presently plans to move the magazine production to other cities. This will increase the opportunity for participation. For legal purposes, *Science for the People* has become incorporated. *Science for the People* is now available in microfilm from Xerox University Microfilms, 300 North Zeeb Rd., Ann Arbor, Mich. 48106, (313) 761-4700.

1199 union members prepare to confront hospital administrators.



ABOUT THIS ISSUE

cpf

When our editorial collective began to work on this issue, we decided not to organize it around a single topic. We wanted an issue that would be of broad interest, and hope we have succeeded. To us the most important themes of this magazine are women's issues and the hidden faces of health care. These two topics are not disconnected; health care has actually appeared as an underlying theme in the analysis of attitudes towards women.

What has emerged about health care in general is not an overall analysis of our health care system, but a collection of perspectives from different groups: health workers, experimental subjects, and those whose health has been jeopardized by their working conditions.

There is much more to the health care system than doctors and hospitals. Necessary supportive services are provided by other people who are not all satisfied with their work situations. "Technicians and 1199" is our first look at work and organizing in hospital laboratories.

Important preventive care can take place outside of hospitals and need not rely solely on medical professionals. "Aiding Workers' Struggles" provides an example of how this work can be done in a political context. The new "Health and Nutrition" column warns that we pay to be poisoned.

While many people are aware that their health needs are not being met by the present system, we seldom hear of groups who are actually hurt ("First Our Land, Now Our Health") or stigmatized ("XYY or XYY?") by their contact with the health care system. These groups are among the subjects of medical experiments and will probably never benefit from the results of the studies. 90% of all first human tests of drugs are on prisoners, yet prison health conditions are notoriously sub-standard ("Inside Prison Walls").

Women have taken the lead in challenging the health care system. The women's health movement has given impetus to investigating the foundations of medicine. We review a recent contribution to our understanding of the historical roots of male-oriented medicine ("Review: Witches, Midwives and Nurses"). "Women as Objects" details the influence male-centered culture has had on medical science in the exclusion of women from scientific societies, in the care given to women as patients, and in the study of women as scientific objects. Looking from an historical and political perspective, the author gives evidence that biology has been used to rationalize the inferior status of women.

Each of the articles, each hidden face, reveals the roles science, specifically medicine, plays in a class society. This is not any different from the understanding that Science for the People has developed about science as a whole. In our society, science is not neutral and is used as an instrument of control, a tool which gives ideological, economic and coercive power to the few ("Science: Political and Personal").

The material in this issue comes from people actively engaged in political work. It is not the product of academic thinkers. Whether exposing the anti-people uses of science, providing technical assistance in progressive struggles, or organizing at scientific workplaces, this is Science for the People. We hope this issue will contribute to our understanding and action.

* * * * *

In the last issue we began a special page on science teaching. We have added what we hope will be two other regular columns, one from women in SftP and one on health and nutrition.

NEWS NOTES

Everyone! Please contribute items of interest and humor to this regular section.

SOCIALLY USEFUL RESEARCH?

Official rhetoric has it that federal involvement in research and development is rapidly shifting from the long post-war emphasis on national security to "societal problems," but in terms of money and manpower the numbers still show that defense-related activities still take the lion's share. Of the \$19,000 million contained in Nixon's budget for R & D in the coming fiscal year, only \$6,000 million is allocated for civilian programs, while the rest goes to the Defense Department, and defense-related activities of the Atomic Energy Commission and NASA. Figures published by the National Science Foundation show that in 1972, and there probably hasn't been much change since then, the Department of Defense provided employment for 45% of all scientists and engineers on the federal payroll.

Another example of "societal research" is a new project by the National Bureau of Standards to "determine ways to stimulate private investment in R & D and its applications." The new program, called Experimental Technology Incentive Program, has announced its first project — the assignment of \$30,000 for the purchase of 10,000 lawnmowers with noise characteristics 50% lower than current levels. The NBS, with its extensive research facilities, will help develop noise specifications for the mowers and the purchasing service will seek bids from manufacturers who can meet them.

US ADMITS WEATHER WARFARE

High-ranking officials of the Department of Defense have told the Senate Foreign Relations Committee in detail about a \$21.6 million, 7 year program of cloud seeding to induce rain over the trails of Laos, North Vietnam, South Vietnam, and Cambodia. Accusations that the military had been carrying out these operations (see *Science for the People*, Vol. IV, No. 4, July 1974) had been regularly denied until now. A total of 2,602 missions were flown from an Air Force base in Thailand, dropping 47,409 canisters of silver iodide or lead iodide, beginning March 20, 1967. The weather warfare reached a peak in 1971, when missions were being flown over northern Cambodia. It was halted on July 5, 1972, after the *New York Times* published a lengthy article about the highly classified operation. None of the governments involved had been informed.

Argument that the program was effective was made on the basis that enemy troop movements seemed to decrease when cloud-seeding activities were intense. However, one official felt, "... it looks to me that when you are getting 21 inches in a given area, and we add 2 inches, if I was on the bottom, I do not think I would know the difference." Non-military scientists have warned that weather modification has the potential for causing large-scale, possibly uncontrollable and unpredictable destruction.

Unanswered questions which remain include whether other agencies than the Defense Department have engaged or are engaging in weather warfare — the CIA has been accused of weather modification over Saigon in 1963, and whether future military programs will include weather modification. Asked about a related report that someone dropped emulsifiers, substances used by oil drillers to make mud stay slippery, one general replied, "No sir, . . . we did not want to do it."

OIL PRICE RISE SPURS PROFIT, NOT OUTPUT

(CPF) The Nixon program, instituted last summer with the announced purpose of spurring greater production of domestic crude oil by allowing prices to rise, has not produced more oil.

It has, however, produced higher prices for consumers and record profits for the big oil companies, according to an exhaustive study of production, prices and profits made by the *New York Times* reported in the April 12 issue.

The *Times* headline put it this way: "Rising prices fail to spur increase in oil production — Nixon program on domestic crude has led to soaring corporate earnings."

The program is described as a "gigantic loophole" by Dr. Fred C. Allvine, who serves as petroleum consultant to the Senate Permanent Subcommittee on Investigations. "It's costing the public about \$4.5 billion a year," he said.

Not only has the program failed to produce more oil, but production of crude, which has been falling since 1970, dropped almost 2% in the last nine weeks. Much of the nation's domestic crude oil has almost tripled in price in only eight months, and the oil companies' earnings in the first quarter of 1974 are expected to soar even higher than 1973 levels.

When the government's program was introduced last August, the average price of a barrel of domestic crude was only \$3.85. Today the uncontrolled price is nearly \$10 a barrel.

AND I THOUGHT IT ONLY COST A DIME . . .

Doctors' telephone consultations may be going the way of the house call. A time-study expert advises doctors that a \$50,000-a-year physician who "wastes" an hour a day on the telephone is lowering his income by \$6,250 a year.

ACTIVIST ENGINEER ILLEGALLY FIRED

A National Labor Relations Board (NLRB) administrative law judge in San Francisco has ruled that Kaiser Engineers, Oakland, Calif., illegally forced the resignation of an engineer for activities he performed for an engineering society while working for Kaiser.

David Allen, the employee, had formed a labor organization known as the Civil Engineer Society which is limited to Kaiser-employed engineers.

In August, 1973, Allen learned that Bechtel Corp., San Francisco, had filed with the U.S. Department of Labor to obtain resident visas for foreign engineers. To protest this action Allen sent letters to five Congressmen stating this might make local engineers "redundant."

When Kaiser learned of the letter and gave Allen the choice of resigning or being fired, he resigned.

The NLRB administrative law judge held, that since Allen's letter was prompted by a fear for the job security of his group's members, writing the letter was a protected activity. The judge ordered Allen reinstated and that he be reimbursed for any loss of pay.

A FUNGUS AMONG US

The Army has been unable to locate 70 tons of a biological warfare fungus developed by the Pentagon, which attacks wheat, a basic food crop. The substance in question was buried in an unrecorded site in the Rocky Mountains. The Army has announced that it has the burial site narrowed down to about 30 acres of land east of Denver. Needless to say, farmers in the area are upset. The Rocky Mountain Farmers Union plans to file a formal protest against the Army's carelessness in not keeping records of the burial areas. Said one member, "It's rather appalling to bury it and not know where."

BERYLLIUM: OCCUPATIONAL AND ENVIRONMENTAL HAZARD

The mantles in gas camping lanterns, and dental inlays, bridges, and crowns, may be a dangerous source of beryllium, a highly toxic metal used mainly in the aerospace, nuclear, computer, and ceramics industries. Kyle Griggs, a scientist at the University of California's Lawrence Laboratory at Livermore, has found that about 400 micrograms of beryllium is released from lantern mantles during the first 15 minutes of burning. He suggests that lanterns be taken outside for lighting and be allowed to burn for 5 minutes before they are brought into a tent or trailer. The metal is added to harden the mantle after the initial lighting.

Beryllium is also becoming more popular in dental alloys that replace more expensive metals. Griggs points out that the new alloys are generally unlabeled as to their beryllium content and present a hazard to dental technicians and dentists who are unaware that special precautions for their use may be necessary.

Prolonged inhalation of beryllium can result in damage to the lungs, heart, liver, and kidneys. Recent evidence has also linked prolonged exposure to beryllium dust and fumes with cancer of the lung, gall bladder, liver, and bile duct.

RUSSELL TRIBUNAL TO INVESTIGATE PUERTO RICO

Repression in Paraguay, Guatemala, Haiti, the Dominican Republic, and Puerto Rico will be investigated at the next session of the Russell Tribunal II on torture and political persecution. The tribunal has just completed hearings on Chile, Brazil, Uruguay, and Bolivia. The tribunal was initiated by the British philosopher Bertrand Russell, and is well-known for its investigation of war crimes committed by the United States in Vietnam.

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Science: POLITICAL and PERSONAL

John Stewart raises the important question of the relation between a scientific method, and politics and their psychological effect on the scientist in his laboratory. He describes a personal viewpoint, but invites readers to suggest what can be done by progressive scientists to ameliorate the situation today while preparing for the science and politics of a new society.

In printing this statement, the editorial collective hopes that some of our readers will be moved to tackle the issue:

What scientific method is consonant with a radical change in society?

In what ways would this eliminate the psychological alienation so many of us experience?

Science and politics are intimately related. Scientific research is a social activity which fulfills a social and political function. Yet, a great many people, including the overwhelming majority of scientists themselves, consider that science is a value-free and apolitical activity.

Science is the basis of our industrial civilization. It is responsible for instruments of war of immense power. Without it our lives would be unimaginably different. The effects of science-based technology on the lives of everyone in the world are so enormous that the social and hence political nature of science should be obvious.

The Official View of Science

The official picture of science is that of a continual interplay between fact and hypothesis. The function of hypothesis is firstly to account for a number of observed facts and secondly to predict some new facts. If the predictions are borne out by subsequent observation, the hypothesis is provisionally accepted, and will be tested further by extending it and/or rendering it more precise, hence leading to new predictions. If the predictions are not borne out, the hypothesis must be either abandoned in favor of an alternative or, more usually, modified to render it consistent with all the facts.

Hidden Values of This View

Before concluding that this process is really value-free, however, there are a number of points to be raised. Scientists do not treat all facts alike; although, they profess a great respect for facts and objectivity. They select for study those facts which fit into their hypothesis by either confirming or contradicting it. They ignore all

other facts as irrelevant and indeed they could not do otherwise if "the scientific method" is to function. Nor are scientists interested equally in all hypotheses or fields of inquiry. They value only "testable" hypotheses, i.e., only hypotheses which function well in "the scientific method" by providing specific predictions which are open to factual verification. The role of prediction in this picture also expresses values, particularly the value of control.

The Political Nature of Science

Science is *not* neutral. It has both political and personal implications.

Prediction gives control to the few who have the means and takes it from the many who don't have access to the reins of technology. Life in a society with a science-based technology has been made so complicated that it seems impossible for any one person to understand it. This madness is officially made palatable for ordinary people by the argument that experts deal only with technical matters that the rest of us don't need to know about in detail. This is adding insult to injury. Not only do we live in a situation where crucial decisions over our lives are inaccessible to us, but on top of that we have the smokescreen and truly Kafkaesque confusion that technology unfolds without any decisions being made.

Applying "the scientific method" to the study of social phenomena, we see the aim of a scientific investigation is to render the phenomena predictable within the framework of so-called, objective observation. Objective observation selects the *status quo* as the norm and attempts to predict why such non-normative behavior as crime, madness, riots, counterculture and "third" political parties occur. The purpose of this prediction is again to control these phenomena, even to prevent their appearance.

Personal Implications Beyond the Political

The official view of science, whether pure, technological or social, aims to leave prediction and control in the hands of the ruling class. It is not for the ordinary person to assume this role. The result is that science mystifies the world we live in, alienating people from their environment and themselves. This is the alienation felt by every ordinary person with respect to science: it is too complicated for any one person to understand. Indeed, it is difficult for anyone who is not a scientist to imagine how far the process of specialization and mutual

incomprehension *has* gone. It is ironical that one of the favorite images of apologists for science is that of a primitive savage at the mercy of an environment (weather, crops, wild animals) that he can neither understand nor control, and can relate to only in terms of superstition and gods. Supposedly the advance of science frees him from ignorance and dependence on natural forces. And yet if we look at our own situation, we are probably further from being able to control the factors that affect our lives than the so-called savage.

A second face of alienation concerns the experience of the scientist, whose specialization and isolation is equally disastrous since it deprives his work of its natural *raison d'être*. But in addition to this social alienation, the supposedly amoral, apolitical nature of the work has a psychological consequence for the scientist. If a scientist retains any moral, emotional or political sensibility, it is in a very uncomfortable schizophrenia with his "scientific Self". But the result of existing solely at a rational, intellectual level is a gradual withering of emotional spontaneity. Furthermore, the refusal to admit the reality of political struggles leads to an aloof, detached liberalism which serves only to mask total complicity with the status quo. In this way the scientist becomes systematically dehumanized—a process which is reflected in the impersonal, hierarchial relationships which generally exist in scientific laboratories. The overall result is a vague alienation—which is difficult to grasp because it is so largely internalized.

In Conclusion

Science is a social activity and this particular philosophy of science has been chosen and developed for social and political reasons. And indeed the attractiveness for a ruling class of a science which produces power *per se* is obvious. The fact that this power is considered value-free immensely increases its utility for the ruling class, since it means that no restrictions are placed on the use of this power.

A radical transformation in the practice of science must take place. I do not believe that this transformation of the nature of science can or should wait until some future revolution. On the contrary, as militant blacks and women have understood, there are some changes which can and must be fought for now. This is not to



deny that the socialist revolution will be essential for the full transformation. Rather, the struggle to achieve the transformation is part of a political process which will include "the revolution" and the transfer of political power. But it must start now and it will continue after "the revolution" (like the Chinese cultural revolution) if the political revolution is truly going to change our lives.

What is to be done?

John Stewart

Northeast Regional Conference

A Second Annual Conference is being called for the Northeast Region of Science for the People. Present plans are for November 16-17 at Voluntown, Connecticut.

The proposed agenda is in two parts, one emphasizing practical work and the other more general political questions.

1. Workshops reporting our progress and what we have learned from: (a) organizing at the workplace, around occupational health, energy crisis issues, a critique of professionalism, science teaching, future AAAS (Am. Assn. for the Advancement of Science) actions, and other community and consumer-oriented projects; (b) opposing racism, sexism and elitism.

2. (a) Whom should we be bringing together? around what? and why? (b) What role can the Northeast Conference play in uniting Science for the People nationally?

There will be an emphasis on integrating the two areas.

Final conference organization and agenda must be decided soon. We are urging groups in the Northeast region to begin working on position papers addressing the agenda topics and to let us know about it. The papers must represent a group or have group endorsement and should be ready for distribution in advance so that other groups can discuss them. Science for the People groups outside the Northeast or non-Science for the People groups who identify with our work may participate in the conference as observers.

For more information call or write:

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For the Northeast Regional Coordinating Committee.

Women as Objects of Science and Sexual Politics

What science offers today (like religion in earlier times) is a system of beliefs and ideas that allows us to create some sort of meaningful pattern out of the information our senses receive. Scientists are, in general, blissfully unaware of the frame of reference in which their work takes place. The scientific community is composed mainly of white middle class males who have accepted the myth of the neutrality of science and been socialized into the professional value system. Taken by the seemingly neutral day-to-day data gathering work, they ignore the fact that the basic assumptions of their culture permeate their work and act as guidelines for their interpretation.

As has been recognized by historians of science,(1) the tradition in which most scientists still work and think derives from the model proposed in the 16th century by Francis Bacon. In Bacon's terms, Nature was the enemy and science was the instrument for its control and domination, a way of recovering the lost dignity of "man". His "House of Solomon" still hovers in our times: a group of male scholars, devoted to scientific research and the pursuit of wisdom, eminently qualified to guide a utopian society. From this vision derived the European scientific societies, elite male institutions "par excellence". Clearly no place for women in this scheme, except as objects of study.

We live in a patriarchal culture that dehumanizes women, setting them up as objects, the "Other" in relation to the "One" (male). Scientists have usually looked upon and studied females as the reproductive system of the species, reducing them to their reproductive organs, their secondary sexual characteristics and/or their sexual behavior. In general, the scientific community has offered in a subtle but consistent way, "scientific" rationalizations for the secondary status of women, and played a limited restrictive function instead of a liberating, creative one. No wonder then if the study of women carried out in this fashion reinforces and is part of the sexual politics of the culture.

Wrong Beginnings: The Human Body Is Male

If we follow the scientific view of women through the ages, we can see that from the earliest beginnings, the ideal of a healthy human body converged with that of a healthy male body. Galen, whose teachings dominated medical education for over a thousand years, saw females as less developed than males, their imperfections being a necessity for the survival of the species:

Well then, Aristotle was right in thinking the females less perfect than the male . . . Indeed you ought not to think that our Creator would purposely make half of the whole race imperfect, and, as it were, mutilated, unless there was to be some great advantage in such a mutilation . . ."(2)

The imperfection of the females consisted in this: while the male reproductive organs are turned inside out, those of the female remain inside, because the female is unable to give them the final eversion. The advantage for the species would be that in this way the female would be "colder" and less likely to disperse her nutrients so that they would be available to the fetus. Galen's authority in the medical field went unchallenged until the Renaissance. In a very real way, his teachings are still with us: people still think of spirits and humors and people still see females as imperfect males.

In the Renaissance, the concept of human as male was further developed: "This my depiction of the human body will be shown to you just as though you had a real man before you," says Leonardo da Vinci in the introduction to his projected and never completed anatomical treatise.(3) His work "On the proportions and on the movement of the human figure" shows only male figures,(4) delivering blows, pulling, leaping, squashing. In the anatomical drawings the external genitalia of the female appear confused or absent: the labia minora and the clitoris are often missing in his drawings.

The clitoris, though it was well known by the Greeks (kletoris), disappeared from anatomical drawings, until it was rediscovered in 1561, by Gabriello Fallopius, who states proudly in his "Observationes anatomicae":

This organ, because small and hidden in the thickest part of the pubis has remained unknown to anatomists, and so I am the first to describe it and I first described it a few years ago and if there are others that have mentioned it or have written about it you should know that they have heard it through me and so for this only reason they do not have such good knowledge. (my translation) (5)

Disgust for genital odours and nasty-smelling substances such as menorrhoeal fluid are described vividly by Linnaeus: "We commonly flee from such odours," he says in his chapters on the Human Condition.(6)

In the nineteenth century the female body is seen as ruled by the reproductive system, women did not have sexual feelings.

To return to the ovaries, about which we were speaking: they it is which give woman all her characteristics of body and mind . . . if the ovaries are so essential to the well-being of the individual in health, these organs, when diseased, must exercise a potent influence in deranging the brain and nervous systems . . . The imperfect development of the ovaries retards the development of the higher nerve-centers . . . As we know, a very large part of the brain and nerve power is devoted to reproduction and, if that function is never established because of the absence of the ovaries, the brain and nervous system are never fully developed. In such a case the nervous system remains upon a lower plane and the woman usually evinces mental weakness and often derangement of intellect. (7)

That women had contributed so poorly to the sciences is explained in the following way. "Extraordinarily important parts of the brain necessary for spiritual life, the frontal convolutions and the temporal lobes are less well developed in women and this difference is Inborn."(8)

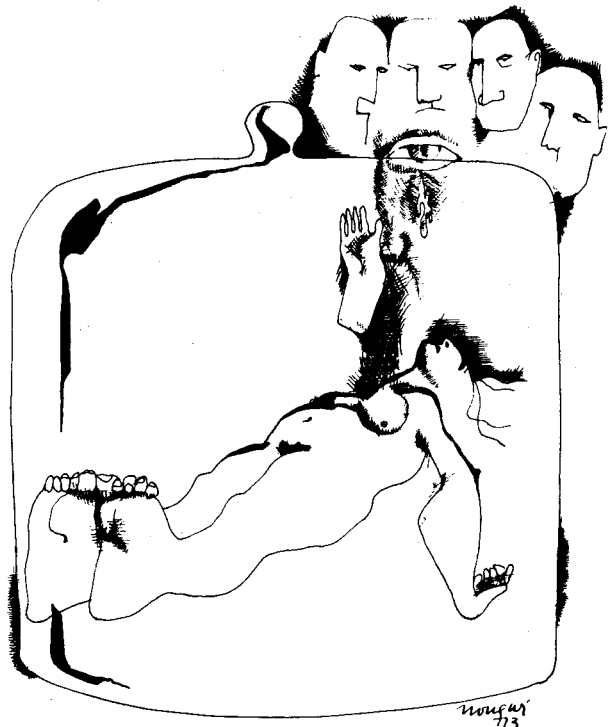
The respiratory system of females was also thought to be different, until 1894 when Clelia Mosher Duel in her report "Respiration in Women"(9) demonstrated that there was no sexual difference in the type of respiration; that clothing was the most potent factor in the production of the female costal respiration and probably a factor also in the production of gall stones, more frequent in women than in men. She also made the connection between clothing and painful menstruation. As skirts grew shorter and lighter and waists grew larger, the health of women improved. A result of her studies was the resolution adopted by the First International Conference of Women Physicians in 1919: "The corset is a surgical appliance needed only by the average woman who is over fat or whose lack of muscular development needs to have artificial support." She also stressed that under normal conditions there should be no more women suffering with disorders of the generative organs than with disturbances of the digestion, respiration or heart.

How Culture "Makes" Biology

Today, the ambivalence of our culture towards female is reflected in the way that perfectly normal and healthy phases of women's lives are viewed as almost pathological episodes from which women will "recover" to become more or less human again. Judith Bardwick's views of female biology fall neatly into the expectations of the culture(10). She is a well-known author of numerous articles on the psychology and physiology of women and teaches psychology at the University of Michigan. She sees menstruation, pregnancy, menopause as "normal crises". The language used is revealing in itself: Why would a normal event be considered a crisis? In the ideology set up by scientific sexism, with winners and losers in the competition with men, the message is clear: very few women can expect to make it as "normal healthy women". We are not all qualified for it. Bardwick accepts enthusiastically the "premenstrual syndrome" hypothesis correlating variations in women's emotional states to the menstrual cycle only. In the premenstrual phase, women are supposed to be more prone to accidents, to be admitted to the hospitals with psychic disturbances, to get involved more easily in criminal actions . . . Here is some of the supportive data:

Within the last six months there has been a number of serious and fatal accidents among women pilots and at the time of these accidents it was found that they were in their menstrual period . . . Some localities in the United States have been practically depleted of women pilots by accidents.(11)

Only recently have poignant criticisms been raised rendering the "premenstrual syndrome" a shaky scientific hypothesis.(12)



Bardwick herself has contributed one of the major pieces of sexist research:(10) an experiment to study changes in the contraction of the uterus in response to sexual and non-sexual stimuli. The contractions were measured by means of a small water-filled balloon inserted into the uterus. Extrusion of the balloon was interpreted as a response to the experiment and an aggressive ending of the situation. The experimental "highly-paid" subjects are classified "passive and sexually anxious" (losers) or "not-anxious, not-passive" (winners) depending on whether they extruded the balloon or not. The winners always kept the balloon, when sexually aroused they had brief uterine spasms suggested (by links with other experiments) as the "normal" response of the uterus during coitus which could increase the probability of conception . . .

There is no way of knowing the influence of sexist ideology on the expression of the human potential of women. In general, the importance of the "environment" can hardly be overemphasized. Over the past 100 years people have not only been getting bigger but also getting bigger earlier. There has been a dramatic decline in the age of puberty which is attained today 2½ to 3½ years earlier than it was a century ago. These changes are probably due to better nutrition, more proteins and calories in early infancy, less diseases, increased psycho-sexual stimulation, and in general, the environmental factors related to the living conditions of people.(13)

The emotional environment in which a human being lives, the degree of love and acceptance of an individual have a powerful impact on her/his growth. Emotional deprivation was probably the main cause of the spectacularly high mortality rates in the 18th and 19th century children's homes. In reviewing the information on children who are abnormally short and thin for their age the most common finding is rejection of the child by one or both parents. A physiological pathway is created whereby the deprived emotional environment affects the endocrine system and has an impact on the child's growth: impulses from the higher brain centers travel along neural pathways to the hypothalamus and through neurohormonal mechanisms act on the pituitary gland, the master gland of the body, and one of the results is abnormal concentration of growth hormone.(14)

Difficult emotional relationships in adolescence, particularly between mothers and daughters, can result in extreme loss of appetite (anorexia nervosa). Adolescent girls in this situation may stop menstruating: the emotional environment halts secretion of the pituitarian hormones that mediate ovarian function.(14)

From old time on, females have been treated in a way that gives them less of a chance for a long life. Female infanticide has been much more common than male infanticide. In classical Athens little girls were brought up on a sparse diet with little protein. The skeletons of ancient times clearly show this kind of discrimination: Calvin Wells, a British medical anthropologist studying Saxon skeletons in East Anglia, has shown that girls began to suffer arrested bone growth (a sign of malnutrition) earlier in life than boys.(15) In pre-

industrial societies, including *all* societies before the Industrial Revolution, men lived longer than women. It is only in industrial societies, where nutritional differences have disappeared and contraceptive and childbearing practices are safer, that women on the average live longer than men. And yet:

In our times, the shortage of worldwide fertilizers will probably have an impact on the life expectancy of females in countries like India. The food shortage, which India is facing, will increase malnutrition and deaths among female children and adults because of the traditional preference for males. (15)

We can only speculate at this point, on the impact that living in a non-sexist society would have on the physiology of women. Being recognized and accepted as full human beings could lead to a fuller expression of genetic potential. In a real way, the struggles for women's rights would affect the biological make-up of females.

Ideology in Birth Control Research

“ . . . Control must be exercised through females . . . Biology makes women responsible . . . ”

Science, editorial by G. Hardin, July 31, 1970.

In making predictions on future methods of fertility control, *Contraceptive Technology*(17) lists 29 potential methods to regulate fertility in the female, 9 for the male and 6 for use by either male or female. This discrepancy is too well known to dwell on. It is worth commenting, though, about the reasons that are still offered to justify the situation. Sheldon Segal, vice-president of the Population Council and director of its Biomedical Division writes in his article "Contraceptive Research, a Male Chauvinist Plot?"(18) that the scientific establishment does not discriminate against women, it is Nature herself that has decreed it so. "Even the forces of women's liberation cannot change the fact that the reproductive analogies between male and female end with sperm transport and egg transport, and that all subsequent events potentially subject to controlled interference occur only in the female." In the female there are many more steps in the series of reproduction events that would be amenable to manipulation, he argues: The maturation of the egg, ovulation, egg transport, fertilization, zygote transport and relation to the cervical mucus, implantation. In male contraception, there are four areas where research is being done: production of the sperm, sperm storage, sperm transport and chemical constitution of the seminal fluid. If one cared to do so, one could argue that males are the ideal target for contraception: they present a simpler picture to start with and a deep understanding of the biological mechanisms involved in sperm production could be attained rapidly. Furthermore males are fertile for most if not all of their lives, while the fertility of females decreases with age and eventually disappears. Because of the menstrual cycle and its changing levels of hormones, the study of females is bound to present many more complications.

A look at some of the research done on male contraception reveals a care and scrupulous attitude rarely found anywhere else in the contraceptive literature. A good example is the work done in the sixties with the *diamines*,⁽¹⁷⁾ a group of compounds that totally suppresses sperm production without interfering with sex hormone production. These compounds were tested in male prisoners and looked extremely promising. The first difficulties arose when the subjects ingested alcohol: dizziness and then other symptoms were noticed. The experiments were halted, as it seemed that the drug was associated with a higher occurrence of hepatitis. *Contraceptive Technology*⁽¹⁷⁾ reports: "It is now uncertain whether the suspected hepatotoxicity was indeed drug related: thus reevaluation of the prospects of this class of drugs should be done." As a comparison, the story of the development of the pill unavoidably comes to mind. The original approval of the FDA for marketing of the drug was based on a study of 850 Puerto Rican and 132 U.S. women during which 5 of the Puerto Rican women died and no autopsies were performed on them. Ultimately, after the Nelson subcommittee hearings, a statement found its way into the pill packages.⁽¹⁹⁾ It contains no warning and blandly suggests that women should periodically see a doctor. The original 600-word statement, warning women of the symptoms and dangers of blood clots, and cautioning women who suffered from diabetes, epilepsy, high blood pressure was the subject of

written both in *Spanish and English*, states that: (1) She has been informed by her doctor of all alternative methods of birth control and of their reliability; (2) She is either unable to tolerate these alternative methods, or she refuses them; (3) She is aware that Depo-Provera has been found to cause tumors in beagles and some of the tumors are malignant; (4) She realizes that it is not known whether she will develop tumors in her breasts as a result of the experiment; (5) She has been told that she may experience side effects caused by the drug, including permanent or temporary sterility.⁽²⁰⁾

This drug has been administered to about 100,000 women in the United States (20,21) and several times as many in other countries. It is considered unique among contraceptives because it can be administered by intramuscular injection once every 3 months and so specially convenient for women who are "undermotivated, unreliable or mentally deficient". It has recently been shown⁽¹⁷⁾ that Depo-Provera users have cervical cancer rates several times higher than women who do not use the drug. Secret transcripts of advisory groups meetings have revealed that Upjohn (the company that markets Depo-Provera) (1) combined results of Depo-Provera studies in 11,500 women although the dosages given them had varied widely; (2) used a statistical method that the FDA's own experts have declared faulty; (3) ignored the Pap smears that suggested malignancy; (4) did not report all the animal data.⁽²¹⁾



a stormy battle between the AMA (American Medical Association), the FDA and women's groups, and it was withdrawn. The question of the safety of the pill is still wide open, but 8 to 9 million American women take the pill every day.

The plight of women as objects of study in the contraceptive field today is masked by the practice of the "informed consent agreement". The case of Depo-Provera is to the point. At the present moment (May, 1974) the FDA has withheld approval of this drug as a contraceptive agent. This decision came as a surprise since in October 1973 the FDA declared its intention to approve the drug for birth control for women who signed the "informed-consent agreement". This agreement,

Depo-Provera appears also in connection with the forced sterilization of poor black people; MinnieLee and Mary Alice Bell of Montgomery, Alabama, the two young black women who were sterilized without their knowledge or consent on June 14, 1973, by the Montgomery Family Planning Clinic, had been given shots of Depo-Provera. In fact, their mother had signed with an X the surgery consent forms thinking she was authorizing more Depo-Provera shots.

While poor women in America are the target of mass experiments, women of the less technologically advanced countries of Europe are also being used as objects of study. In 1969 the Yugoslavian government and the FDA

(continued on page 29)

Review: WITCHES, MIDWIVES & NURSES A history of Women Healers

Witches, Midwives, and Nurses by Barbara Ehrenreich and Deirdre English, Glass Mountain Pamphlet No. 1 (The Feminist Press, State University of New York/College of Old Westbury, Box 334, Old Westbury, N.Y. 11568, 1973). \$1.25.

Lay Healers and Professionals

Health care in the western world has not always been dominated by (male) professionals. Before the professionals took over, health care was practiced mainly by autonomous healers, mostly women. Conventional medical histories usually claim that the professional takeover was just a case of hard science and technology winning out over women because men are more suited for the incisive, empirical approach demanded by scientific medicine; women are more suited for nurturing and curing — to be nurses.

Differences from country to country in the structure of health care indicate that there is something not entirely right with these reasons. Although health care is mainly controlled by male professionals in Western Europe, it is neither as male dominated nor as professionally oriented as in the United States. For example, in England, twenty-four percent of doctors are women whereas in the United States seven percent are. Midwifery exists in European countries as a respected occupation for women but has virtually been outlawed in the United States since the early 1900's. In England eighty percent of all births are delivered by midwives, often in the mother's home. Midwives are also an important part of the medical scene in Sweden, Germany, the Netherlands, and France.

In the pamphlet, *Witches, Midwives, and Nurses*, Barbara Ehrenreich and Deirdre English describe important phases in the male professional takeover of health care in Europe and in the United States. Surprisingly, the professional takeover in Europe was accomplished by the suppression of witches which occurred at different times in various countries roughly in the period from 1300-1700. In the United States, the main takeover took place around the 1900's.

The authors find that the conventional reasons given for the rise of (male) professionals are myths. The professional takeover of health care in both epochs occurred before there was any real scientific superiority of the practicing professionals. If anything, the medical craft practiced by (female) lay healers, particularly during the Middle Ages, appears to be empirically based and superior to that practiced by the (male) professionals. Thus, both myths are debunked at once.

Moreover, as the authors point out, the professional takeover of health care was part of a class struggle. The lay healers were frequently the only healers for the poor and women; they were people's doctors and an autonomous group in the people's subculture. However, the rise of professional doctors (and professionals, in general) in both Europe and the United States depended upon the wealthy and powerful in the society, a dominant elite which had the power to make or influence laws which certified a particular group as being "professional" and outlawed all others. For this reason and others, including great prestige, high income, and training, most professionals identify with the needs of the dominant elite rather than with those of the people; besides serving as technocrats, they help rationalize and justify the status quo. (1, 2)

Midwife's Delivery



Western Europe: 1300-1700

As the authors stress, the witch-hunts in medieval Europe were due neither to the hysteria of the masses who went on lynching raids nor to the hysteria of women suddenly gone mad, the conventional medical explanations. "The witch-hunts were well-organized campaigns, initiated, financed and executed by Church and State." Reliable sources have estimated that as many as millions of witches were killed — eighty-five percent of those executed were women. A main target of the witch hunts was the autonomous lay healers, called "wise-women" by the people, but "witches" by the authorities.

The growth of commerce and towns led to the foundation of universities in the twelfth and thirteenth centuries. The universities produced the professionals needed by the new rising middle class in the towns, lawyers and judges, doctors and theologians. The medieval university was under the control of the Church, and its teachings were decidedly anti-empirical, including that in medicine. Medical students spent years studying Plato, Aristotle, and Christian theology, but no experimentation of any kind was taught.

There is good evidence that the lay healers were to some extent empirical and through observation and testing discovered a number of drugs and herbs still used today, for example, ergot, belladonna, and digitalis. As empiricists and autonomous lay healers, these women were a threat to the authority of the Church. In the fourteenth century, the Church effectively declared that a woman who dared to *cure without having studied* (at the universities, of course) was a witch and had to die. Later, the Protestants likewise declared unlicensed healers and midwives to be witches.

The takeover by the (male) professionals in this period was due to the massive campaign of suppression of the lay healers as witches and not because of the superiority of the medical theory or practices of the professionals.

The authors also make the very good point of differentiating between expertise (which they are decidedly for) and professionalism (which they are strongly opposed to). The history of health care shows that the two words are not at all synonymous.

The authors suggest that the witch-hunts had deeper social significance beyond the history of medicine:

In locale and timing, the most virulent witch hunts were associated with periods of great social upheaval shaking feudalism at its roots — mass peasant uprisings and conspiracies, the beginnings of capitalism, and the rise of Protestantism.

This is undoubtedly true; and it is unfortunate that the authors did not pursue these questions further since the witch-hunts were related to other important events — the Inquisition, and the increasing exclusion of women from all the better-paying trades, not just health care, in the sixteenth and seventeenth centuries.



Doctor's Delivery

United States

The active takeover of health care by male professionals which occurred in the United States around the 1900's was part of the tremendous growth in the number of colleges and universities, modelled on the research institutes of Germany, and the development of professionals as an intellectual elite. The growth was fostered and shaped by huge sums of money donated by the extremely wealthy corporate elite, such as Rockefeller and Carnegie, either directly through grants or indirectly through the foundations they founded.

Again the male professional takeover was not due to any substantive advantage that practicing doctors had over lay healers. The case of obstetrics is an interesting one to consider. Here the professionals did have an edge — the most important being techniques for combatting puerperal sepsis (uterine infections) and neonatal ophthalmia (blindness due to parental infection with gonorrhea). Midwives would have been quite capable of grasping these techniques, needing only an upgrading of their training as occurred in Europe.

Professionalization of obstetrics, which costs considerably more, meant worse or no obstetrical care for poor women. For example in the years immediately after the passage of the law forbidding midwifery in the early 1900's there was a rise in the infant mortality in Washington. Midwifery did not die out completely, but has been used primarily for the poor or in remote areas, such as Appalachia.

These points are all brought out by Patrick Young in an article "The Thoroughly Modern Midwife,"(3) in which he described the move to introduce nurse-midwives (their new para-professional title) for general obstetrical care. This move was endorsed by professional obstetricians in October, 1970, apparently because fewer doctors are going into obstetrics. Since the American Medical Association carefully controls the number of doctors, this probably means greener (more lucrative) pastures are opening elsewhere. A good part of the reason, however, may be the pressure from the women's health movement demanding better, more humane health care which professional doctors may be unwilling to provide. After all, there probably is more money to be made elsewhere than to wait up all night and more through a delivery by natural childbirth.

Young goes on to quote statistics which show how the introduction of nurse-midwives in poor communities produced spectacular reductions in the infant mortality rates. For example, in Holmes County, Mississippi, the rate declined from 39 deaths per 1000 live births in 1960 to 17 per 1000 live births in 1970 after five nurse-midwives spent the year working among poor mothers. Ehrenreich and English show that the effects of outlawing midwives was apparent in the years immediately after the law was passed.

According to the authors, the sexist opposition to women in medicine was more virulent and the male takeover went further in the United States partly because the feminist movement was stronger and more threatening than that in Europe. The history of Women's Movements are usually strongest in periods when there are other active radical movements. Second, sexism is closely related to racism. Thus, the turn of the twentieth century was also marked by virulent racism and considerable social unrest, particularly among the more recent immigrants. Scientists at the newly established universities conveniently reinforced the prevalent racist and sexist sentiments, finding non-whites totally sub-human, new immigrants utterly inferior, and of course, women physically and mentally inferior to men.

The Medical Profession Today

Today, such diverse elements in society as middle-class white women and the urban poor, mainly Blacks, Puerto-Ricans, and Chicanos, are increasingly criticizing the prohibitive costs, the sexism, the facism, and the practices of the medical profession and health care institutions.

The average annual income of a practicing doctor is \$45,000; a "high earner," a cardiac surgeon, for example, often makes more than \$250,000 a year. Power within the highly structured medical profession is closely correlated with sex and race. Ninety-three percent of doctors are men, as are almost all the top directors and administrators. Seventy percent of all health workers, however, are women. Most of these women, especially if they are black or some other minority, work at the lowest paying, most menial jobs.

Comments on "Witches, Midwives, and Nurses"

This slim pamphlet has a number of flaws — one being that it is overpriced, but still worth getting. Another is that the authors cover such a vast amount of material in so few pages (43) that various questions are not dealt with in sufficient detail. The authors essentially rely upon the reader having a certain background and state of consciousness. Some of the points made appear to be overstated: for example, statements about the Popular Health Movement in the United States in the 1840's and 1850's should be further substantiated. Overall, however, the pamphlet is excellent. Ehrenreich and English have succeeded in bringing together a great deal of information. The efforts of these authors have to be commended. Their endeavor illustrates a number of crucial points. It demonstrates the need to demystify professionalism in history as well as in medicine. The pamphlet shows why it is so important for women to discover and analyze their own history, both to help debunk myths and to gain new insights into their struggles today.

Witches, Midwives, and Nurses grew out of the authors' involvement in the women's health movement. In the context of this historical analysis, the women's health movement can be seen to be potentially an important political one.

Freda Salzman

Notes

1. *Science for the People*, March, 1974. Special issue on I.Q.
2. *Science for the People*, May, 1974. Special issue on Behavior Modification.
3. Patrick Young, *Saturday Review*, (Science issue), September 2, 1972, p. 42.

About the author: The author is a member of a group of women, associated with *Science for the People* in the Boston area, who are writing several articles on how scientific ideology is used to oppress women. These articles will be published this year as a (still untitled) book.

NOTE: Sections of the review which are not attributed to specific sources are based primarily upon *Witches, Midwives, and Nurses* and material in the articles which the author's group is writing.

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SCIENCE for the PEOPLE

THE NATURAL BIRTH OF A WOMAN'S GROUP

"I am doing good political work in Science for the People, but I'm not dealing with the special problems of women."

"I'd like to write an article for the magazine but I'm not sure I can do one that's good enough."

"In my laboratory I am taken less seriously than my male co-workers."

"I want to get into a study group to read Marx, but I am intimidated by people (usually men) who have more theoretical knowledge than I do."

"I would like to see a column in the magazine devoted to women's issues, and more articles written by women."

"It is easy to pretend that all remnants of sexism have been eliminated from the Boston chapter of Science for the People, but we women know it's still there. How can one deal with it in the most effective way?"

It was clearly time for us to meet together as women in Science for the People and to end our isolation from each other. The first two meetings were explosions of concerns, resentments and interests that had been dammed up for too long. By the time the third meeting was over, we had divided into two groups in order to fulfill the major needs which had emerged.

The impetus for our meeting can be traced back to last Fall's Eastern Regional Conference where it was decided that people in the local chapters should take a close look at problems of "sexism, racism and elitism." The Boston chapter then held two general meetings about "Interpersonal Relations and the Class Struggle." These meetings centered around problems that have been destructive to our work, but we never really got around to sexism or any issues of special concern to women. Subsequently the Boston Steering Committee suggested that we plan for a general meeting to deal with the question of radical feminism versus socialist feminism. A planning committee (composed of women and men) started to form, but it

soon became clear to a few of the women involved that what was really needed was not a theoretical discussion but instead a vehicle for women to get together on the basis of our common experiences as women, in science, in the Left, and in Science for the People. So that's what we're doing. And the result is that there are so many possible directions to take, so many needs are being expressed, that we are amazed we didn't do it sooner.

Our original group of about eighteen has split just about in half. The two groups meet separately most of the time but we'll all get together about once a month. One of the groups is going to focus on studying together, and has arranged to be one of ten study groups that are formed for the summer by a new organization of socialist feminists. Our alliance with the social feminists allows us to participate in building what will hopefully become a strong, action-oriented, politically coherent organization, and remain at the same time primarily identified with Science for the People. The other half of us is more interested in meeting as a support group that will deal more specifically with immediate problems of sexism at our places of work and even within Science for the People itself. One idea is to focus on a different person's situation and concentrate all our attention on this one woman. We expect that common denominators will emerge from these discussions, that the larger context which created the problems will supplant our previous personal feelings that individual neuroses are the basis for negative experience.

It is important for us, as Linda Gordon says in her article in *Liberation*,⁽¹⁾

to understand any given situation from the point of view of the most oppressed group concerned. When there are women present, this group will always be female. When there are race differences, it will be black women. When there are class differences, it will be poor women.

Most of us feel so high and optimistic about this new mode of activity in Boston Science for the People that we hardly notice that another meeting has been added to our already overloaded schedules. Somehow these gatherings just don't feel like the meetings we're used to. We expect our women's group is going to be not only a learning and growing experience for us, but also that it will add to the coherence and effectiveness of the organization as a whole.

We would like reactions, ideas, comments, etc. from readers and from other Science for the People chapters.

Notes

1. Linda Gordon, "Radical Academic Guide: Women in History," in *Liberation*, vol. 15, no. 10 (Winter, 1971).

Carol Axelrod
Ruth Crocker

AIDING WORKERS' STRUGGLES

I showed the article you sent me [on vinyl chloride] to some people in the shop. Someone copied it, and put it on a bulletin board with a note saying, "I see we work in a cancer factory." Well, the company called a meeting right away, and told us all the things they were going to do about the problem. They told us we were okay, that those people got sick in the Goodrich plant because of the way they did things twenty years ago. That may be true, but I don't want to get sick in twenty years because of something we're doing today. They gave us a list of chemicals we'd been after for months, and promised action on other problems. They know about [name of another safety committee member] and me, we're always active and giving them trouble, but when the other guys start talking, then management gets worried."

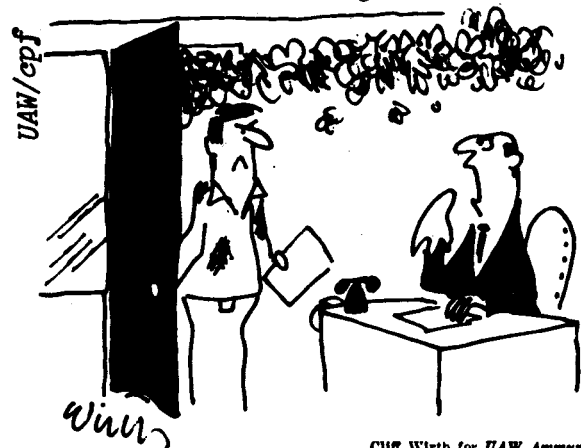
Health and safety is an issue around which academic people and workers have come together to try to effect some change in the conditions within plants. In this article I will attempt to relate my experiences of providing technical assistance to workers as they organized themselves around a particular incident of occupational health.

Where did this concern about health and safety grow out of? The issue itself has existed for a long time. Public concern with toxic effects of chemicals created fertile soil in which workers' complaints about conditions inside the plant grew. The threat that workplace hazards might leak into the community was another contributing factor to new public interest in workers' problems. As a result of this concern the Occupational Safety and Health Act (O.S.H.A.) was passed in 1971. Besides showing that people are at least aware that the problem exists, the law as a national code unites local actions. The federal standards provide a framework for the examination of working conditions and lend more credibility to the results. Many feel that this law can have a real impact on rank and file workers' interest in plant problems and conditions, and may also serve to increase workers' militancy.

My own experience with this issue has been through the Health and safety Project at Urban Planning Aid (U.P.A.)* I am part of a group of eight people who provide information about the technical and legal aspects of the problem to workers who are attempting to fight about health and safety issues. This project is about four years old, and uses different techniques to reach people: education, technical assistance, legal struggles, and publications.

The educational part of the project includes giving courses in health and safety in which the law, technical information and other people's experiences are discussed. Usually, a course like this is given at night and runs for about five two-hour sessions. They have often been arranged through the U. Mass. Institute for Labor Affairs. The U. Mass. Institute is closely tied to the state AFL-CIO, and sets up these courses by contacting union leaders, who in turn contact the locals. The courses are attended by a varied group of people: rank and file workers, safety committee members, stewards and local union officials. People from community groups and workplace-oriented organizers have also initiated courses.

*639 Massachusetts Ave., Cambridge, Mass.



Cliff Wirth for UAW Ammunition

"Another ridiculous grievance about working conditions? For Pete's sake, close that door!"

At the present time there have been over 200 students in these courses, representing a cross section of active union members and other political activists. The effect of the course on these "students" is that they return to their workplace as more safety-conscious people, equipped with knowledge about the procedures for carrying out needed changes.

Another phase of the work done by the project is technical assistance. We have been in touch with a large number of situations on an intermittent basis. Generally we get calls about specific problems: What's in this material? Can we use the noise meter? Can you explain our legal rights? We send out literature, give answers, often go out and meet with safety committees a few times, and have even been brought into a couple of plants. In many cases we have played intermediary between the workers and state agencies involved in this area.

The U.P.A. project worked closely with the O.S.H.A. Committee of the State Labor Council (which included participation of non-AFL-CIO unions) to defeat the Mass. State Plan. State enforcement would have been less aggressive than federal enforcement of the safety and health law. We found a movement lawyer to analyze proposed legislation, helped organize testimony at the State House, and induced interested academic scientists to testify at the State House. The opportunity to make people more aware of the issue made struggle on the legislative front worthwhile.

A fourth tactic used by people in the project to spread information is publications, which include a series of pamphlets and fact sheets (*A Unionist's Guide to O.S.H.A.* and *How to Look at Your Plant* — see the July issue of *SftP*). We also put out a monthly newsletter called *Survival Kit*, which includes articles by workers, accounts of conditions and struggles, technical information and legal information.

The project has viewed its main work as intensive and continued contact with the rank and file of local unions or with groups of unorganized workers. It is important for us to be useful to these people, to supply them with enough real information. It is important for us to not just serve as a gripe center; we must do more than just tell people how lousy their jobs are. We want to provide people with tools and support, we want to aid union organizing drives, and we want to learn the realities and politics of factory work. However, we are dependent on the union and how far they want to push; this has often tied us to the middle level of the union hierarchy and separated us from the rank and file.

The level of organization and militancy in the shop can also be a limitation, but there is no one model into which all our experiences fit neatly. There is no stereotype which accurately describes all union leaders or all rank-and-filers, nor do these people seem to be always consistent in their actions all of the time.

We still have a lot more to learn about the role unions play today. Why is it that the triumverate of minorities/women/young workers, who are supposed to drive the



TECHNICAL

UNIONISM

... For too long the aura of science has kept scientists and engineers separate from other workers. Their long, hard years of training have been used to white-wash the fact that skills and expertise do not also bring security or decision-making power. Scientists and engineers do not decide what work they should do or what the priorities of technology should be. Even academic research trends are in actuality controlled not by the researchers but by the priorities that the research funders set up. Scientists and engineers must have the strength of unity so that they can begin to use their skills for the true benefit of mankind, not simply for reaping corporate profits.

from "Engineering Unionism: A Recent History,"
Spark, Fall, 1973.

SPARK

is the magazine of *The Committee for Social Responsibility in Engineering* (C.S.R.E.), 475 Riverside Drive, New York, N.Y. 10027.

Annual Membership: \$10

labor movement to the left, are often the segment of the work force with the lowest participation in unions? Are workers'-control-type demands qualitatively different from the economic demands traditionally pursued by American unions?

My assessment is that there are no demands which are inherently less co-optable than others; it all depends on the circumstances. It seems to me that it's participation from the bottom which is the key to whether workplace struggles are ultimately progressive.

We are continually trying to figure out what we are doing and why. In the struggle situations it's not always clear how a specific instance relates to ultimate political goals. We certainly don't know as much about the problems as the women and men in the shop. We see ourselves primarily as resource people, as catalysts to the workers' actions, and as allies. This is the kind of work where SESPA/SftP members can join in.

Frank Mirer

TECHNICIANS

TECHNICIANS IN HOSPITAL A

A woman with a bachelor's degree in science entered the work force after raising her family.

WHAT DO YOU THINK OF THE WORK HERE?

I'm never bored although the work is repetitive. I like being around people. Working here has stimulated me to do more reading, and the lab work encompasses immunology, arthritis and such. After being out of school so long I took microbiology for a year. I felt I updated myself on what had happened since I left school, but I couldn't take some of the pettiness involved with the process of learning.

HOW DO YOU FEEL ABOUT THE FACILITIES?

The working conditions are cramped, the lab is a third the size it should be for the work that's being done.

A young woman in her first job after college.

YOU'VE BEEN HERE THREE YEARS. HOW DO YOU FIND IT?

The work load is too high for the number of people. But most of the work is interesting because the doctors talk to you about the patients' diseases.

I'm a social person and I feel isolated from society by working in a lab. I have no patient contact; I don't readily see fruits of my labors.

I'm leaving to go into another kind of work.

WHAT OBSERVATIONS HAVE YOU MADE ON THE LAB?

A doctor will say, "That girl there in the white coat . . ." So we bought name tags and wore them!

Many of the technicians are frustrated would-be doctors. At school and college they were discouraged by their teachers from becoming doctors, and yet, since they were among the few women who studied and liked science, they felt superior to other women. But the work as technicians did not placate our egos. The work is repetitive; there's a lot of nit-picky detail [which women are supposed to do better than men].

There's low morale and both petty and real grievances . . . mostly because of lost time . . . we've been out of school too long . . . too late to go back . . . and lost expectations.

In the following series of statements we have scientific workplaces. Hospital and research labs have quite different motivations and expectations. They help to solidify class consciousness. The two hospital lab unions (the Union of Hospital and Health Care Workers). At Massachusetts. We encourage those in labs to discuss statements which reflect their experience.

THE UN

WHAT OTHER BENEFITS HAVE BEEN WON BY THE UNION?

E.S.: Some of the benefits which 1199 members have won are: disability insurance, comprehensive medical and dental coverage including maternity care, free prescriptions, out-patient X-ray and lab service, a training and upgrading program, increased vacation and holidays, a strong grievance procedure, increased sick days, job security. There's a pension for retirees.

In New York City, the union built for its members, 1199 Plaza, a housing complex at moderate prices.

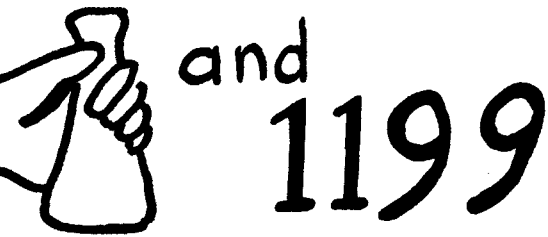
WHAT ARE THE CONDITIONS WHICH MAKE A LAB RIGHT FOR UNIONIZING?

E.S.: The pay for technicians in the Boston area is \$50 less per week than the pay for technicians in New York City and Philadelphia who belong to the union.

The workers in labs are without adequate fringe benefits, most have no family health coverage, no say in working conditions. If one or two technicians receive higher pay it is because they have buttered up the boss to get privileges on a person-to-person basis. There are no rights.

HOW SHOULD A RESEARCH WORKER GO ABOUT TRYING TO BRING, SAY, THE TECHNICIANS IN HIS/HER LAB INTO THE UNION?

E.S.: The research worker should join the union and begin to organize others into the union.



attempted to contribute to our understanding of
ories are very different. Different workers may have
ionization can substantially improve wages and
interviewed are being organized by 1199 (National
Elliot Small is the Area Director of 1199 in Massa-
series with their co-workers and to send us state-

N SPEAKS

IS ORGANIZING TECH WORKERS IN HOSPITALS DIFFERENT FROM ORGANIZING THOSE IN UNI- VERSITY LABS?

E.S.: In a hospital the technicians from all the labs should be organized together . . . to prepare for a vote with the National Labor Relations Board (NLRB) or the State Labor Relations Board. (So far non-profit hospitals are not covered by the NLRB).

In university or hospital labs where the money comes from grants, all the technicians being made from one grant . . . in whatever institution they are working, should be organized together.

HOW DO YOU ANSWER THE STATEMENT THAT TECHNICIANS ARE PROFESSIONALS AND DO NOT WANT TO BE ORGANIZED?

E.S.: Professionals are also workers! The teachers of the nation finally learned this and nurses are in the process of unionizing. Teaching assistants who help with research should join the Teachers Union, College Section.

Local 1199 has a section called, "The Guild of Professional, Technical and Office Employees." It has organized 16,000 of these people who make up an important section of the health care industry. Included in this section are: registered pharmacists, psychologists, research workers, among many categories.

HOSPITAL LABORATORY B

My part-time secretarial job at a local hospital was intended as a quiet port in the storm of unemployment, an uncomplicated perch from which to look for something more "scientific." Instead, I am set down, a Judy Garland in the Land Oz, smack in the middle of a unionizing struggle, complete with cops, leaflets and disputation. I am at once surprised, and surprised at my own surprise — evidently some people don't believe their own rhetoric! Anyway, this being my first work-place organizing experience, I write to share a few observations with SftP.

With Marxian predictability . . .

— All administrators, my supervisors, doctors are opposed to the union. Their opposition made clear by personal pressure and letters from the administration solidly pro-union, clericals divided, other type workers I don't know, except lots of aids and maintenance attended the union meeting I went to.

— Union leaflets about low wages, working conditions, lack of respect paid to workers followed by hospital letter granting slight wage increase and credit union for employees—also, doctors and supervisors show more respect.

— Hospital also warns of disruptions "as happened elsewhere" if union enters, and hints at dark designs and entanglements implicit in union membership.

— Union tries to set up election with hospital administration. Hospital balks, delays. Many workers stage noon-time demonstration at chief administrator's office (he had refused to see delegation of workers, only one worker, singly).

— In response to attempts to intimidate pro-union workers, union publishes leaflet with list of workers' organizing rights. Leafletting continues, hospital gets mad, calls cops, security takes name of leafletting workers, union organizer gets arrested, later released.

— Attempt to get election bogs down in courts. I, an evening and week-end worker, continue to miss most of action. Get most info from departmental techs, many of whom are militant. I have taken part in some good discussions with them and some secretaries, but there is an overwhelming, built-in cultural thing *not to discuss*. There is a TV for rest-period watching.

(continued from page 19)

I work very hard at my job here at very low pay. The pay, as in most women's work seems to be based on the assumption that it's augmenting some other main source of income, as it often is. The work is much harder than scientific work and less interesting, but at this time in history, probably more useful. There is a strange *deja-vu* feeling about unionizing—like, didn't it all happen before, around 1880? — Visions of Walter Pigeon marching with his mates to the pit-head at 5:30 a.m., singing in Welsh. These personal aberrations aside, it's interesting that even the threat of unionizing has brought forth concessions from the hospital that they had been saying they were too poor for. A union leaflet with a flow-chart showing money coming into and going out of the hospitals and the intercommunications with the banks and insurance companies comes to mind as a counter to the hospitals' poor-mouthing.

In the war of the hospital letters and union leaflets, the hospital propagates its position freely via letters to all employees, sent out at will. The union has only the medium of the leaflet, which the hospital tries to block as illegal and disruptive. So much for free speech. I wonder if this inequity comes through. It's hard to say—it seems so proper for the administrators to address their employees, while the leafletting by nature comes across as an intrusion. The hospital played up the theme of the union-as-disruption a lot at first—not so much recently. Is it too idiotic a ploy even for them to use?

Another thing I've noted is that many workers base their opposition on the very real history of union corruption and general post World War II co-optation by the ruling class. They know all about this, but almost nothing about the *good* labor struggles of the past—a tribute to the selectivity of bourgeois education. There's a big need for labor history education.

CHILE REVISITED

One year after the coup of Sept. 11, 1973, the economic measures imposed by the Junta continue to exact a heavy toll on the Chilean workers and peasants and even on the middle class. Severe political repression continues to be applied albeit somewhat more selectively. Here, excerpted from a longer article to be published in a later issue, are some of the priorities for action.

At the time of this writing (July, 1974), the coalition of parties that made up the Popular Unity under President Allende along with progressive and leftist forces from other countries, are meeting in order to press for the following immediate objectives: (1) an end to the internal state of siege — it is nearly impossible to act as long as the country is ruled by military decree only; (2) an end to arbitrary detentions, tortures and summary executions; (3) release of all political prisoners; (4) respect for human rights; (5) respect for elementary civic and worker union rights.

The National Co-ordinating Committee in Solidarity with Chile held the National Legislative Conference on Chile and People's Lobby in Washington D.C. on July 14 and 15. There were talks on Pending Legislation and Initiatives for New Legislation. This was followed by workshops on: (1) cut-off of military and police aid to the Junta; (2) the cut-off of economic aid and U.S. connected international credit (food for people to be administered by the U.N. Commission); (3) to extend Chilean visitors visas and open U.S. borders to refugees; (4) embargo on trade with Chile; (5) congressional investigation of U.S. involvement in

the coup and the deaths of two American citizens during the coup.

For information on how to join with or contribute to the actions decided on by these workshops, contact:

Chicago Comm. to
Save Lives in Chile
542 S. Dearborn St.
Chicago, Ill. 60605
312-431-1267

Berkeley Nich (Non-
Intervention in Chile)
P.O. Box 800
Berkeley, CA. 94701
415-548-3221

Nat'l Co-ordinating
Committee in Soli-
darity with Chile
(NCCSC)
National Center
156 5th Ave.
New York, N.Y.
212-691-9025

Another possibility for action is channeling monies to the Chilean Committee for Peace. This committee is formed by the Chilean Roman Catholic Church, the Protestant Church groups and the High Rabbi of Chile. (This is the only Chilean aid organization that is allowed to function openly in Chile.) They are actively involved in giving legal and financial aid to persecuted individuals and families and also are providing financial assistance to workers who are organizing themselves into small independent production units. Or funds may be sent directly to Chilean Committee for Peace, c/o William L. Wipfler, Latin American Dept., Division of Overseas Ministries, National Council of Churches, 415 Riverside Drive, N.Y., N.Y. 10027, also a member of the NCCSC.



**WHAT YOU DON'T KNOW CAN HARM YOU.
WHAT YOU DO KNOW CAN HARM YOU.**

Can you read print smaller than that in the telephone directory? This is the type the food industry uses to inform us of the additives in food.

Suppose we can and do read the small print, what does it tell us? Carrageenan, glycol monostearate, BHT, diglycerides, propylene glycol alginate! Most of us are none the wiser. Although it was a great triumph when consumer pressure forced the Federal Drug Administration (FDA) to require listing of non-foods on food packages, it really left the next step up to us. Do we spend our money on fresheners (which some wag said make the life of bread longer than that of the consumer), on antioxidants which prevent a rancid taste in old fats, on coloring matter which pleases the eye but may induce cancer, and on chemicals which give bulk to our ice cream (bought by the volume)? Or, do we organize a boycott of foods containing additives?

The FDA has ruled that additives must improve the nutritional value of the food, enhance consumer acceptability, improve the keeping quality, or facilitate preparation of the food. Furthermore, the Delaney Amendment states that a food additive which causes tumors in humans or animals must be banned. The FDA is charged with monitoring the harmful effects of the additives. Here's the rub. There is a long list of additives which are classified as GRAS (Generally Regarded As Safe). Many of these permitted additives are nevertheless under further study because there is a suspicion that they *may* cause cancer (are carcinogens), produce mutations in the unborn (are mutagens), produce malformed babies (are teratogens), or have harmful effects on the nervous system. One or more of these effects are suspected to be caused by gum tragacanth, which is used in salad dressing and sherbert (but which has been banned in Great Britain, Romania and Sweden); by BHT, which one finds listed on our cereal boxes, freeze dried meat, candy and chewing gum wrappers; by various forms of glycerides which are common in beverages, ice cream, chocolate and whipped toppings, to name only a few.

When one knows the potential dangers of these additives, one does have the choice not to buy them. However, the dairy and baking industries have gained the "privilege" of not listing additives in their products. Ice cream may contain as many as thirty chemical additives and is lucky if it has ever seen a cow. Calcium sulphate (a form of Plaster of Paris) is often added to cottage cheese. A package labeled simply "bread" can contain bleaching and aging agents, dough conditioners and an incredible abundance of other chemicals.

A classic story is that of sodium nitrite which until recently was not listed on food labels. Sodium nitrite has long been a valuable chemical to the meat and fish industries. It enhances the color of hot dogs and other sausages and it kills *Clostridium botulinum*, a bacterium which causes the often fatal disease botulism. Thereby the nitrite increases the shelf life of cured meats, which allows large corporations to distribute on a national scale. Nitrites also impart the characteristic taste to ham and smoked fish . . . all within the FDA rulings. But . . . recently, nitrites have been found to produce cancer. They do this by combining with amines (a large class of organic compounds widely present in natural foods) to form nitrosamines. Various nitrosamines induce malignant tumors in mice, rats, dog, mink and sheep among many other mammals. They must be assumed to do so also in humans.

When the U.S. Department of Agriculture (USDA) was challenged to ban nitrites from the meat and fish industries it claimed that the original objective was eye and taste appeal. When asked about the cancer danger, the USDA said that botulism would be rampant if nitrites were not used.

There exist several ways out of this dilemma. Botulinum bacteria are killed when heated to 180° for thirty minutes, or kept under continuous freezing conditions. Large quantities of Vitamin C have been found to block most of the nitrite from joining with the amines. So if you have the time to search, and if you can accustom your eye to a grayish hot dog and a slightly different taste, there are food co-ops and the Shiloh Farms which market frozen additive-free cured meats.

There's a lot more to this story, and we suggest that you may want to inform yourselves by reading the listed books. Those of us who know, must tell others. It is critical that we also bring pressure by writing congress-people and the Commissioner of FDA (Rockville, Maryland 20852) to have nitrites totally banned immediately and to have additives listed on dairy and bakery goods.

In the meantime, shop carefully and do read the small print!

How Sodium Nitrite Can Affect Your Health, Michael F. Jacobson, Center for Science in the Public Interest, 1779 Church Street, NW Washington, DC 20036 (1973).

A Consumer's Dictionary of Food Additives, Ruth Winter, N.Y. Crown (1972).

Brenda Lansdown
(with the Health and Nutrition Column Collective)



You've just returned home from the Lying-In Hospital in Boston bearing a beautiful normal baby boy. You and the father let out a quiet sigh of relief — everything went alright, the future looks bright, true happiness is yours. In a few days, however, a message arrives from Dr. Stanley Walzer, a child psychiatrist associated with the Lying-In Hospital, informing you that your child has a chromosomal abnormality: your pride and joy has been born with XYY sex chromosomes instead of the usual XY ones. (Female sex chromosomes are XX.) What does this mean? Dr. Walzer explains that males with XYY chromosomes have been found to have behavior problems. What kind of problems? Well, violent and aggressive behavior have been found among the XYY inmates of mental-penal institutions. Since the evidence is not conclusive, Dr. Walzer would like to do a more careful study. Fear and anxiety overwhelm you. Is that a little criminal in the cradle? In your case there is no need to worry. Dr. Walzer has been funded by the National Institute of Health (NIH) to conduct a study of newborn XYY children. He assures you of psychiatric help should any sign of unusually aggressive or violent behavior be found in your boy.

While you and the father alternate between the desire to help your baby and legitimate anger (who asked the goddam doctor to do such a study anyway?), the die is cast. Among the pile of forms you signed at the hospital one indeed states: "All male infants get a genetic screening blood test as part of a large NIH grant. This has become an integral part of the hospital's routine and we hope soon to include all infants in this worthwhile study. If an abnormality is found, you will be informed." Although you still have the right at this point to refuse participation in the study, you do not have much of a practical choice: you would never forgive yourself if something indeed went wrong. You agree to have Dr. Walzer follow up on your kid.

This may sound like science fiction, but is happening here in Boston *despite the fact that there is no such thing as an XYY syndrome, no evidence that extreme aggressive or violent behavior is associated with XYY chromosomes and no proof whatsoever that XYY males have criminal tendencies.*

The Birth of a Myth

According to a National Institute of Mental Health study on the XYY chromosomal abnormality,(1) the first published report of a man with XYY chromosomes appeared in 1961. Between 1961 and 1968, screening of males with some mental or physical abnormality revealed several more XYY's. Some investigators noted that such males were unusually tall and several had histories suggesting violent and aggressive behavior.

The controversy hit the media when defense attorneys in several murder cases started claiming that their clients were not responsible for their criminal behavior because an XYY constitution had been detected and, hence, the criminal behavior was genetically predetermined. The



press picked up these arguments. And so a myth was born. In 1968, Richard Speck, convicted of murdering eight Chicago nurses, was reported in the press to have XYY chromosomes. Later this was discovered not to be so, but a retraction was not publicized.

The Evidence

To obtain evidence of the correlation between possession of XYY chromosomes and violent aggressive behavior, about forty studies in Europe, Australia and the United States tested inmates who were already in mental-penal institutions. Pooling these somewhat dubious data, Hook(2) estimates that 2% of the inmate population are XYY. In 50% of these studies only males over six feet tall were tested. Very few studies have concerned themselves with the prevalence rates of XYY in the general population. Combining the data which are available on the "normal" population and on newborns (these rates are not necessarily the same), one can arrive at an estimate of .1 to .4%(2). From these data it might appear that a larger percentage of XYY males are in such institutions than in the general population. A recent review article, however, brings even these data into question on the basis of newer studies.(3)

The assumptions that (a) inmates of mental-penal institutions whether XYY or not are violent and aggressive and that (b) presence of XYY chromosomes predict criminal behavior, require examination. Nobody knows how many successful aggressive businessmen are XYY! It could well be that XYY males, compared with other "criminals" may simply be less adept at evading arrest. For example, many are very tall and easily spotted in a group of people coming in contact with the police. They might be taken for the leaders because of their height and therefore held for whatever happened. Or the severe acne supposedly associated with XYY males could have significant effects on how other people relate to them, thereby channeling them toward aggressive or criminal behavior.

It appears that the stigma of extremely violent and aggressive behavior of XYY people derives from the simplistic view that if a single Y chromosome contributes to maleness (as against the female XX), then an extra Y chromosome will make a "super-male" having an extreme male-behavior trait, e.g., aggressiveness. Interestingly, an XYYY male has been described, who exhibited no abnormally aggressive behavior.(4)

What are the criteria for putting people into mental-penal institutions? What is "deviant" behavior and who defines it? What is criminal, abnormal or anti-social? In one article on the XYY syndrome, some investigators suggest homosexuality and masturbation as indicators of deviant XYY behavior.(5) The lack of any real criteria concerning these aspects in the published studies raises, of course, questions as to what is the appropriate control population. The answers may be found more in the social than in the genetic conditions.

With so many undefined variables and such slender statistical data, a scientific case for a correlation between possession of XYY chromosomes and criminal behavior cannot be established. There are also contradictory data to invalidate the relationship. For example, there is no consistent indication of violent and aggressive behavior among XYY's. On the contrary, among all inmates of institutions the XYY's show significantly fewer crimes against people compared with other inmates; they are also not markedly different in intelligence or hostility.(1) There is, in fact, a wide range of physical and behavioral traits to be observed among all the XYY's studied so far. Some are actually female!

A direct causal relationship between the XYY genetic character and supposed "socially deviant" behavior has not been demonstrated. It is not clear that such a relationship could ever be demonstrated convincingly and further that the problem is worth studying. In fact, the major effects of these studies are likely to be harmful to people.

Social-economic Background of the XYY Studies

The wave of XYY studies is not an isolated incident of bad science but rather a reflection of a general political and social-economic climate. More and more we find that pseudo-science is being used to explain away social problems. Large psycho-surgery programs, which blame ghetto violence on brain defects, were initially funded by NIH and cut off only through public pressure. Shockley, Jensen and Herrnstein propose that black and/or lower-class people are genetically inferior, so it is a waste of time and money to provide equal opportunity in education and life.(6) A theory of genetic determinism for criminal behavior comes in handy for an administration which spends more money on war (is this criminal?) than for the liberal social programs of the '60's. Although a correlation between genetic constitution such as XYY and criminal behavior is not a scientific fact, it gives pseudo-scientific backing for the current ideology of "blaming the victim."

One important question here is whether research of the XYY type benefits anybody. The work is obviously not being done to help the XYY people but to stigmatize them. Already there have been reports of abortions of XYY fetuses after detection by amniocentesis.(2) In Maryland, all boys in juvenile jails are screened for XYY chromosomes without legal consent of the parents; the results are included in the boys' criminal records.(7) This raises the question of true informed consent. Parents signing the Lying-In Hospital forms should know the facts in this article. Even where they do wish to sign, the researcher has the obligation to follow the 1974 Health Education and Welfare guidelines on policies and procedures for the protection of human subjects. These detail the concept of informed consent; they require both comprehension of adequate information (and written proof of this is mandated) and autonomy of consent, i.e., the fair option not to participate.(8)

(continued from page 23)

Informed consent is not being obtained at the Lying-In Hospital. Dr. Walzer's excuse is that, in fact, he screens for as many as 30 chromosomal abnormalities and that it would be tedious to explain each of these in an information booklet. Walzer is not sure for how long he will follow up the children. What will happen to this option if his large NIH grant is suddenly cut off? Moreover, Walzer is convinced that the hospital would ask him to terminate his study if it received any kind of publicity, in spite of the "worthwhile" statement on the form.

To offset the dangerous implications of studies such as the XYY one, some members of the Boston SESPA chapter have formed a group to plan action concerning the recently developed biochemical and genetic knowledge and technology.

Dirk Elseviers

Footnotes

1. Report on the XYY chromosomal abnormality (Published by the National Institute for Mental Health/Center for Studies of Crime and Delinquency; (5454 Wisconsin Ave., Chevy Chase, MD. 20015). Oct. 1970.

2. E.B. Hook. Behavior implications of the human XYY genotype. *Science* 179: 139 (1973).
3. M. Goldstein. Brain research and violent behavior. in *Arch. Neurology*. 30, Vol. I, p. 1, Jan. 1974.
4. H. Hunter and R. Quaife. A 48, XYYY male: a somatic and psychiatric description. *J. Med. Gen.* 10: 80 (1973).
5. L.F. Jarvik, V. Klodin and S.S. Matsuyama. Human aggression and the extra Y chromosome fact or fantasy? *American Psychologist*. August, 1973. p. 673.
6. See *Science for the People*, March, 1974. See also H. Lubs et al. Correlations between low IQ, race and variations in Q and C banding. *Amer. J. Hum. Genet.* 24: 47a (1973).
7. J. Katz. *Experimentation with Human Beings*. The Russell Sage Foundation (1972).
8. Federal Register 38, number 221, part II; Dept. of Health, Education and Welfare.

9. We have learned that this paragraph is being changed in the new information booklet now being printed by the hospital. In the new version it is more explicitly stated that the screening is part of a study and not really routine. It indicates that in case of abnormality the doctor wants to follow up the child by occasional visits to the home, but XYY is not specifically mentioned. As far as we can tell the new version would only antagonize those people who would not want to participate in any study at all, and therefore, our critique of this study still holds.

The Genetic Engineering Group in Boston

After a discussion on the Walzer XYY study,(1) we felt that the benefits of stopping the research would indeed outweigh any harm which might be done to the few children now under study. In fact, we have much greater fear of the harm Dr. Walzer has already done by the information given to the parents. A basis for selffulfilling prophecy is well established.(2) In addition, the study itself might be used to stigmatize people and add to the trend of blaming people for their own misfortunes.

We decided to approach the Commission of Inquiry at Harvard Medical School to lodge a formal complaint against the Walzer research. Dr. Clifford Barger, Chairperson of this committee, admitted that both Committees on Human Studies which had originally reviewed the ethical aspects of Walzer's study, had had reservations although they had approved it. He has referred our complaint to the Human Studies Committee at Harvard Medical School which will hold public hearings in September to reconsider the ethical aspects. We are preparing for these hearings by seeking expert witnesses to testify for our cause with the aim of forcing the hospital to discontinue its sanction of the XYY research.

This is a good starting point for ongoing national action because a similar study is being conducted in Denver. We expect to turn local and national press onto these issues so that a wide range of the public will become informed.

The group is still in the process of defining its goals, but our overall position may be summarized:

(1) Scientific progress does not equal human progress and technology is not a goal in itself.

(2) Scientists cannot be trusted to regulate their own activities; they should account for the consequences of their work even as politicians are supposed to.

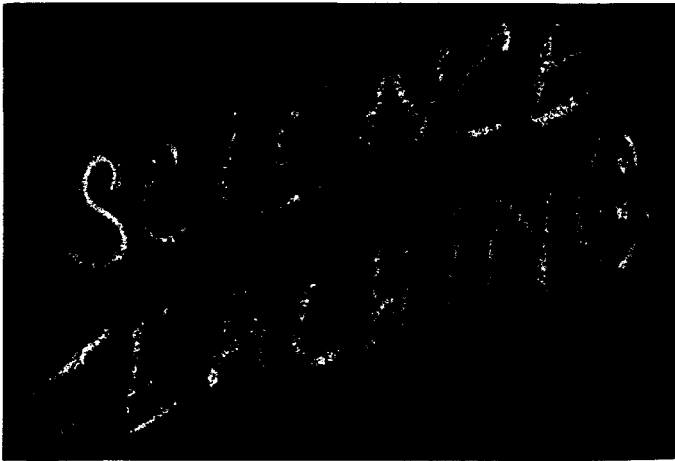
(3) Through action within the scientific and general community we hope to raise a general consciousness for the vital issues of biological and genetic knowledge and technology.

We plan to attend seminars in the area which have controversial social implications and to challenge the speakers who show lack of social awareness and responsibility.

Other scientific projects which have harmful effects involving similar studies on human experimentation will be challenged. One product of our efforts already, in addition to workshops for teachers, has been an article by members of the group published in *Psychology Today*.(3)

Notes

1. See Elseviers' article, "The Criminal XYY Chromosomes: fact or fiction," in this issue.
2. R. Rosenthal. "The Pygmalion effect." *Psychology Today*, 7:56 (1973).
3. F. Ausubel, J. Beckwith and K. Janssen. "The Politics of Genetic Engineering: Who Decides Who's Defective." *Psychology Today*, June, 1974, p. 30.



INSIDE PRISON WALLS

A survival course for prisoners? Does this mean adjusting to prison conditions? Or aiding resistance?

Twice a week for the spring semester I conducted a one and a half hour course with a group of sixty prisoners in two state prisons. This type of teaching was new to me, but the structure and content which developed seemed very successful and may offer suggestions to others. A large percentage of the inmate/students stayed with the course, which is unusual in the prison environment. Many said it was the best course they had ever taken; a number said it changed some aspect of their lives; and a few actively urged me to come teach again.

The course is entitled "Science for Humane Survival" and is normally taught at U. Mass., Boston. It was selected by the inmate advisory board (along with four other U. Mass. courses), and I hectically began pulling material together that I thought was relevant to survival in prisons. That orientation was the basic ingredient in the course's success. Raising and examining survival issues — those issues necessary to living like human beings — is what education-for-change should be about. Some of the issues aroused immediate interest: behavior modification and human experimentation. Others were appreciated after they were looked at more closely: workplace safety and nutrition. But they all added to our understanding of how deeply our lives are affected by corporations and their State. For example, during a session on the health care system some of the inmates figured out that many of the drug tests they participate in yield higher drug company profits — not better drugs. This happens because many "new" drugs are really just minor alterations of old ones, designed to renew patent rights but acting no better than the old drugs.

Organizing a course around survival issues is a hard task since it doesn't fit the specialties teachers are normally trained in. I put the course together in about a month by talking with a lot of people associated with various parts of the prison reform movement. After I got a sense of what were considered important issues for survival, I went out to find "experts" and experienced people who would actually teach the class. The experts

included an M.I.T. psychologist, a free-lance journalist, and a U. Mass. undergrad who had researched medical experimentation on prisoners. These people gave the course a solid informational basis. In turn, they were informed about the struggles and conditions in prisons: they came to realize that prisoners are like everyone else. This was one of the political goals I had hoped would be accomplished; the other was that prisoners would come to realize that they were not alone, that people on the outside recognized the importance of their struggle. The combination of the experts' modesty and the cons' interest broke down many of the usual barriers between the scientifically trained and untrained.

Two of the major goals of the course were to develop the intellectual confidence of the inmates and to enhance their abilities of collectively understanding and solving their problems. Group oral reports and attempts to draw out collective solutions in discussion were methods used to accomplish these goals. The group reports covered investigations of prison conditions, accounts of work experiences, and book reviews. Many of the cons were eager students, and their political ideas developed rapidly as they talked things out in groups. On the other hand, class discussions were hard to focus and to direct to some collective conclusion. Perhaps even more than our other institutions, prisons mold behavior that keeps people apart. The awesome power of the state makes resistance all but futile; the individualized nature of the few rewards pits one against another; the maiming of inmates' egos by the prison prompts some to assert themselves in monologues. These difficulties were seldom satisfactorily surmounted in the course. Yet the survival orientation and the exchange between prisoners and those attempting to be helpful allies had a positive effect on many people.

Many prisons are open to courses offered by qualified people, and those who wish to develop ties with prisoners should seek out the opportunities. Survival courses can provide a setting for servicing and learning from other oppressed groups as well. And for those who teach in non-elite high schools and colleges, it seems that topics such as health care, sexist science, and work-unemployment would be useful ones to pursue, for they speak to people's needs and give them some tools for fighting back. Remember Attica.

Michael Teel

Copies of the course outline are available from the Boston SftP office.

ATTICA

A film based on the McKay Commission Report

Available free from

Modern Talking Picture Service
Film Scheduling Center
2323 New Hyde Park Rd.
New Hyde Park, N.Y. 11040

FIRST OUR LAND, NOW OUR HEALTH

In 1970, the Department of Defense awarded the University of Minnesota Medical School \$88,725* to continue research begun in 1954 on the biology and epidemiology** of staphylococci and streptococci, the bacterial agents of the diseases impetigo and nephritis. This investigation involving hundreds of thousands of dollars has been carried on at Red Lake Indian Reservation. The Reservation residents were not treated as patients to be cured of bacterial infection but as a source of experimental data.

In a Symposium recorded in *Military Medicine*,(1) chaired by the principal investigator, Dr. Wannamaker, of the Red Lake studies, the editors state that the findings at Red Lake can be used to predict the risk of development of nephritis among U.S. soldiers in Southeast Asia. In effect, Red Lake was a simulation of the hygienic conditions of a Vietnam battlefield where impetigo is also present. On the grant application for continuation of the Red Lake study,(2) the following were listed as reasons for military support:

- (1) Large numbers of soldiers get impetigo.
- (2) Impetigo is endemic*** in the Middle East.
- (3) A difference in susceptibility between races has been noted, the applications of which would be investigated.

Impetigo and Nephritis

Impetigo is a skin disease caused by streptococci bacteria inducing boil-like pustules on the face, legs and other exposed parts of the body, which may itch, burn and bleed. It spreads rapidly, persists unless treated and leads to multiple infection in families. With certain strains of streptococci, impetigo can lead to nephritis, an inflammation of the kidneys, characterized by blood in urine (hematuria) and can lead to kidney failure. Nephritis requires hospitalization. Impetigo is routinely cured with penicillin.

Crowding and low socio-economic conditions appear to influence the spread of impetigo.(3) Children are more susceptible to impetigo than are other age groups. Probably due to crowded and unsanitary living condi-

*Contract number DADA 17-70-C0081 and DADA 17-70-C0082.

**Epidemiology is the science investigating the incidence, distribution and control of a disease in a population.

***Endemic means prevalent in a particular geographic region.

tions, impetigo has been an important cause of illness in wartime, as, for example, troops in the Mekong Delta were commonly disabled by impetigo.

Areas in which widespread impetigo has been studied are Red Lake, Minnesota; Birmingham, Alabama; Trinidad; Lebanon and South Vietnam. The incidence of contracting impetigo seems higher among dark-skinned people but the possible role of racial factors is uncertain. Investigations of racial differences in susceptibility have obvious importance for the U.S. Defense Department in Third World counterinsurgency operations.

Health Care at Red Lake

The 900 square mile Reservation of the Chippewa Nation, located in Northwestern Minnesota, comprises approximately 3,000 people. Most of the population live in or nearby the three major towns — Red Lake, Redby and Ponemah. The economy is based on fishing and a small amount of logging. Some jobs are available on the Reservation through work programs instituted by the government such as OEO and HEW.

The medical facilities on the Reservation consist of a hospital and a clinic staffed by two or three Public Health doctors. The Public Health doctors practice on the Reservation in lieu of military service for the three years immediately following their internship. Since the end of the medical draft, the supply of doctors on Reservations is approaching a new low.

Most of the medical problems can be related to the living conditions, such as poor housing, clothing and diet. There are few preventive programs. The average age of death is 42. Diseases of every kind are seen in the Red Lake area. Pneumonia is a winter-long disease; tuberculosis is prevalent. Both impetigo and nephritis have reached epidemic proportions at Red Lake in 1953 and 1966.

Published Red Lake Studies

The following reports are typical of the human impetigo/nephritis experiments conducted on Native Americans at Red Lake, Minnesota:

1. After a 1953 epidemic, impetigo at Red Lake was found to be endemic with a high occurrence of nephritis. The occurrence of nephritis as a consequence of impetigo at Red Lake was first reported in 1954.(4) During the epidemic there were 56 cases of nephritis among some 300 cases of impetigo. The report listed the clinical symptoms and the specific type of streptococcal bacteria

responsible for the epidemic. It was common for two individuals in the same family to have nephritis.(4) The report concluded that penicillin injections were effective in treatment of the disease.

Since 1954, most studies proposed to type the streptococcal strain involved in impetigo and nephritis (5, 6, 7, 8) and follow the course of the disease.

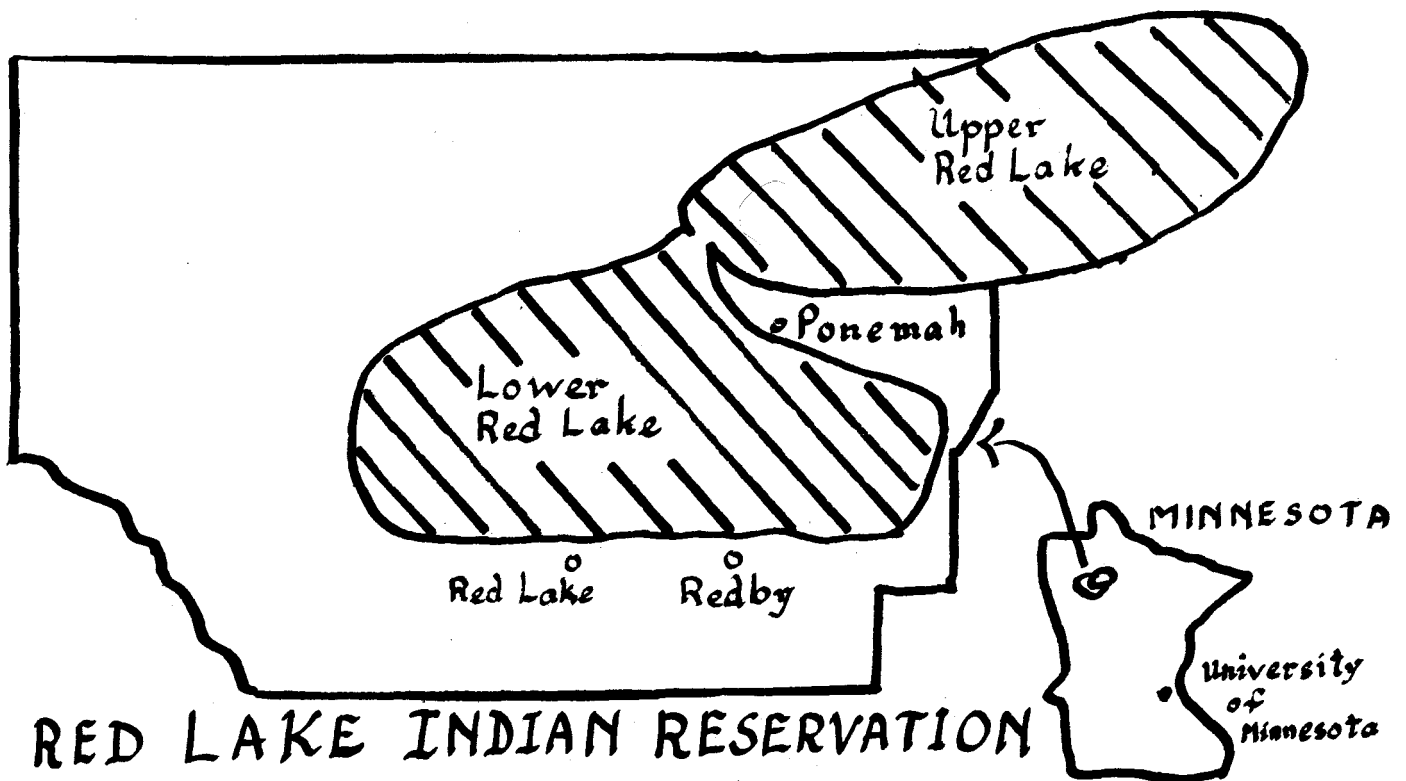
2. A 1970 study (9) documents the appearance and the sequential spread of streptococci among the various body sites and their relation to impetigo. Included was epidemiological information on nephritis and impetigo occurring in a family before and after the development of nephritis. A mother and her two 5-year-old twins all developed impetigo and then nephritis during the summer-long study, as reported. The three developed impetigo sores from which M-57 streptococci was isolated (M-57 is one type among a handful of streptococci implicated in nephritis outbreaks as a result of impetigo). The mother of the twins developed nephritis 9 and 12 days before the twins. Not until each had developed nephritis and had been hospitalized was penicillin given. The hospital stay of each was approximately 10 days.

In this study the twins and their sisters and brothers, who all had impetigo, were monitored *three times per week* and left untreated in order to determine the latent period from the time of the first impetigo lesion to the first manifestation of nephritis. However, prompt treatment of infected siblings is recommended (10) in families with outbreaks of nephritis.

In this study the investigators seem especially interested in the particular strain of bacteria involved, which presumably justifies (in their minds) the withholding of penicillin from the children and the intrusion on their daily lives three times per week.

3. Another recent study, 1971, (11) investigated the prophylactic (preventive) effects of penicillin against impetigo. The experiment was done to determine how long after penicillin injections it takes for impetigo to develop in a community harboring impetigo-causing bacteria. In the study, a group of 70 children was divided into two groups, A and B. Group A was given a single injection of penicillin, and group B was given a single injection of saline. Six weeks later, Group B was given the penicillin and group A saline. After each injection, the children went into the community, and the number and time that impetigo was contracted in each group was noted. Results showed that penicillin was an effective prophylactic for 28 days.

This type of experimentation with the residents of Red Lake is exploitative because the subjects were not informed of the purpose of the experiment and because the results of the experiment are of no use for the impetigo infections suffered by Red Lake residents. The flare-ups of epidemics were already known to be controlled by wide distribution of penicillin,(4) and in the long-term, recurrent, endemic infections (called chronic infections) penicillin cannot be used. Indeed, during long



range treatment with penicillin (as with any other antibiotic), people develop resistant bacterial strains; also in a certain percentage of the population penicillin causes a severe allergic reaction.

The rationale behind these experiments can be found in Wannamaker and Dillon, early 1971 article, published in *Military Medicine*.(1) They point out that there was a keen interest of the U.S. military in the efficacy of systematic penicillin therapy, and the lack of such data in early 1971. The symposium from which this article was taken was initiated because of the importance of impetigo as a major cause of disability among servicemen in Southeast Asia. (We have found no such symposium conducted to rid Red Lake Reservation of impetigo and nephritis.)



4. Beginning in January, 1966, 100 Native American children in the Headstart program at the Red Lake Reservation were monitored weekly for the presence of streptococci.(7) The screening procedures were clinical observations, urine examinations, and culturing of bacteria from nose, throat, and skin lesions. It is not known whether the parents of the children knew the purposes of these examinations.

In July of that year, four cases of acute nephritis were detected. The investigators became very interested in the unusual strain of bacteria involved, identical to that of the 1953 epidemics (which had never been studied completely). Surmising an outbreak of nephritis, they undertook a more complete epidemiological study and looked for cases of subclinical nephritis (i.e., cases in which people are not obviously ill) in the Headstart program children. They found 15 such cases with very small amounts of blood in their urine who never showed obvious signs of nephritis and so definite diagnosis of nephritis could not be made. These children were brought to the University of Minnesota Hospital for a renal biopsy. This can be a painful procedure: the skin is anesthetized around the hip, a long needle apparatus is pushed into the kidney. The kidney sample thus obtained is analyzed for the presence or absence of abnormal kidney tissue. Evidence of kidney damage was found in the 15 children.

All results were tabulated together for a complete epidemiological picture including data on kidney biopsies, typing of streptococcal strains in impetigo lesions and other body sites; amounts of blood and protein in urine; facial and limb swelling (edema); and hypertension.

A publication(1) specifically points out the importance to military medicine of the 1966 studies of the subclinical cases of nephritis (those confirmed only by renal biopsy) including the extent of damage expected from nephritis outbreaks. The Red Lake children population on the other hand did not benefit from the studies. There was

no report of treatment. None of the parents had asked for their children to be transported to Minneapolis for kidney biopsies.

Discussion

As discussed in the 1971 *Military Medicine* article,(1) the U.S. military has a deep interest in these studies. Skin infections are a major cause of disability among servicemen in Southeast Asia and other places. The type of information in these studies is essential for the control of impetigo in military installations and for prediction of the risk of development of nephritis among such military personnel. Also, the possibility of racial differences in disease susceptibility could be used for military purposes.

These studies are beneficial to another group: the investigators who develop scientific careers by the publication of such studies receiving large sums of grant money. The number of publications and the money a scientist brings into the university are always a consideration in his/her promotion. In all these articles, the sponsorship of the Armed Forces Epidemiological Board is acknowledged. No credits are extended to the Native Americans . . .

The conduct of medical research on Third World peoples is not unique to Red Lake. Other examples are the syphilis studies on Blacks at Tuskegee, Alabama,(12) and the hepatitis studies at the Willowbrook State Institution, New York, where low-income people were injected with live hepatitis viruses.(13) But we do not need to cite only these blatant examples to show that health care in this country is objectively racist — Third World people consistently receive the worst care while sustaining the highest rate of illness.

At first, it may seem that the exploitation on the Red Lake Reservation is somehow "out there" — morally reprehensible, but not directly bearing on our own lives. Along with this is the idea that when we fight racist practices directed against other peoples, we do it for them, not for ourselves. However, *all* low and middle income Americans of every race receive inadequate health care, and for the same reasons. Our health needs, like those of Red Lake residents, are sacrificed for the career ambitions of the doctors and the interests of the agencies funding the medical programs. The impetigo study at Red Lake is not merely an atrocity calling for token reparations, but a pointed illustration of the general medical policies that hurt all of us. We see that a fight against the underlying causes of racist health care is in the material interest of all of us.

Sandra Spier and Sam Skoog

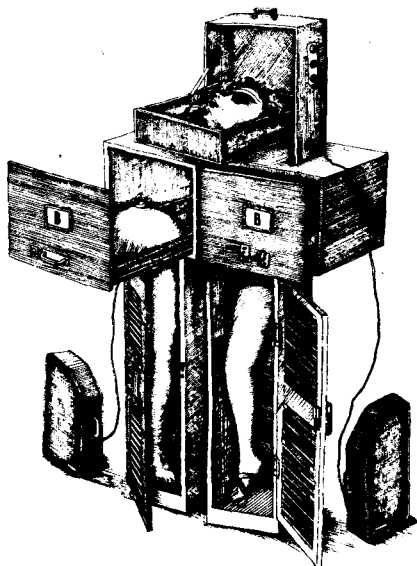
The Minnesota chapters of Science for the People and the Committee Against Racism [CAR] worked together in the preparation of this report. CAR is a recently formed national organization predicated on the assertion that racism hurts all of us, including whites, and that we must unite in a multiracial struggle whose outcome is crucial to the majority of people in our country. We are carrying out further work on this issue.

Further information about the CAR project on Red Lake can be obtained by writing:

CAR, Minneapolis Chapter
c/o E.C.
1507 University Ave. S.E.
Minneapolis, Minnesota 55414

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(continued from page 11)

signed contracts to conduct a major series of studies on the safety of oral contraceptives.(22) The research was expected to be 5 times less expensive than if conducted in the U.S.

What the new advances in contraception reserves for women is another matter of speculation. It is dubious that hormonal contraception will ever be perfected to eliminate all of its side effects and there is likely to be great resistance to hormonal methods for males. It is possible that one of the new areas to develop will involve control of the hypothalamus *via* the cerebral cortex. What this means is that more sophisticated neuro-endocrinological drugs will be developed that will act on our higher centers and our minds, literally, will be the next target.(23)

The "New Biology"

"New" Biology is the fancy term currently used to describe recent developments in genetic engineering, reproductive biology, neurological control of behavior, etc. Fertilization of human eggs in the laboratory and procedures to put those embryos back in a uterus (implantation is one of the areas where work is rapidly progressing. The womb that will receive these embryos can be that of the woman that furnished the egg or that of a different woman, thus raising the possibility of a woman "doing" a pregnancy for another woman.

Nature, a prestigious British scientific journal, reports on this work:

Have set up a charitable trust to attempt to increase the pace of their work on helping infertile women. . . . The growth of a human embryo in a test tube, which was hailed with such publicity a few years ago, was pioneered by Dr. Edwards and Mr. Steptoe. This work which is primarily designed to help wives who cannot have children by normal means also has several other beneficial effects not the least of which is to obtain a greater understanding of congenital abnormalities. . . . Ova are removed from the wife by laparoscopy — a minor operation where a needle is inserted into previously prepared ovaries through the naval in order to remove the ova. The ova are fertilized by the husband's sperm and then grow for a matter of days in the laboratory. The process thus far has been perfected but the problems of implanting the few days old embryo in the womb to grow and develop normally are so far unsolved. (24)

Edwards expects to accomplish a successful implantation that might lead to a normal pregnancy in the next year or two. One of the by-products of this research will be the possibility of choosing the sex of the embryo whose development will be carried to completion by simply implanting only those of the desired sex. (Sophisticated techniques to detect the sex of embryos by chromosomal analysis are also being developed.)

Needless to say, this research raises a myriad of ethical and political questions. Which embryos are going to be implanted? Who are going to be the "surrogate" mothers? Who are the women who are being used in these experiments? What exactly were they told? Do they consent to the operation to remove eggs from their ovaries under the impression that an embryo will be implanted in their wombs? How clear is it to them that at least for the moment they are only experimental subjects?

The women who participate in this project are usually infertile because of blocked oviducts. Edwards says: "We tell women with blocked oviducts: your only hope of having a child is to help us. Then maybe we can help you."⁽²⁵⁾ This is probably a simplified view of the situation: blocked oviducts constitute about 20% of the causes for female infertility and can be treated by traditional surgery. In many instances they are associated with abnormal ovaries and this would make the procedure non-applicable anyhow.

To describe the procedure to obtain the eggs as "laparoscopy — a minor operation" is, to say the least, an optimistic professional view. It involves a program of hormone injections; at least 24 hours in the hospital with general anesthesia; distension of the abdomen with an inert gas; incisions in the abdominal wall with insertion of a telescope and an aspiration device to collect ovarian follicles.⁽²⁶⁾

In Britain there are approximately 20,000 women who want a child but cannot get pregnant because of blocked Fallopian tubes. There are about 10 million women of reproductive age, one million who are pregnant and one million who are actively avoiding pregnancy. It is somewhat ironic that Edwards and others choose to work in an area whose social contribution will be in "helping infertile women" when the scientific research establishment claims widespread concern about overpopulation. In this day and age, the umbilical cord, the physical link between mother and child still catches the fantasy of a probably well-meaning scientist. The nine months of pregnancy are given central attention and modern science outstretches itself to ensure biological motherhood.



Some Thoughts on Feminism and Science

It is useful to review some of the characteristics of the scientific establishment before trying to articulate thoughts around the issues of feminism and science. The training of most scientists and the conditions governing scientific research today succeed in allowing scientists to be interested in scientific progress in a strictly technological way without concern for human values. The scientific establishment is part of the power structure and the needs of the scientific community are met by financing from the government or powerful private institutions. The main type of behavior expected from scientists is professionalism: treating knowledge as private property above a democratic review, seeking a privileged status with credentials, avoiding evaluation or even egalitarian discussion with the people affected by their work and dependent upon their performance.

In science, there are practically no competing schools of thought. The community is run by consensus and the members of the establishment are the only judges of the work that is done by its members: they set the standards of what is going to be accepted as "good work". Very few women participate actively and there are practically no feminists' or feminist points of view expressed.

What then would be the components of a philosophy that would fit a feminist perspective?

About the author: Rita Arditti lives in Cambridge, Mass., with her son, Federico. She has been in the scientific "scene" for fifteen years, has done research, taught and gone around several laboratories and universities disguised as a molecular biologist. She is fascinated by the power of ideology in shaping people's lives. She is now working with an experimental higher education program (Union Graduate School) and runs with three other women a women's bookstore in the Cambridge-Somerville area (New Words, 419 Washington Street, Somerville, Mass. 02143).

First of all a feminist perspective would involve the creation of an environment that maximizes the development of minds and bodies and encourages positive attitudes towards one's own biological identity. It would involve the conversion from an exploitative value-free technology to a commitment to a humane technology: to preventive medicine, fair distribution of material goods and educational opportunities. Love and identification with the object of study would be necessary components.

Scientific research that would finally take the interests of women into consideration will only be developed and carried out in a life-oriented society in which sexism does not exist anymore and in which feminist priorities are priorities of the whole culture. The gap between scientist and non-scientists will decrease in direct proportion to the acceptance of women and the concept of self-help would be fully accepted and fostered by the scientific community.

Females would no longer be considered the sole reproductive units of the species. A priority would be given to the area of health related to women and children. (The U.S. today runs 15th among the nations of the world in infant mortality rates.) The myths surrounding menstruation and menopause and the value of the hormonal therapies given to women in different moments of their lives would be clarified. The whole area of reproductive research, contraception, would be revised. A list of possible topics of research would include: serious efforts in the study of male contraception to begin closing the gap between the methods now available to both sexes; developing pregnancy tests to detect pregnancy before a missing period and research in methods for early abortions; precise determination of the time of ovulation; research into diseases that affect mostly women like lupus erythematosus and rheumatoid arthritis; methods for the early detection of cancer of the female organs, etc.

However, the individual attitudes of scientists alone will not be enough to stop the subversion of new knowledge that takes place all the time in our culture. The technology that derives from new knowledge is continuously used to buttress the interests of a profit-seeking, anti-life economy. Witness, for women, the use that corporations have made of the new, two minute pregnancy testing methods: the telephone company (particularly the Bell system) screens the urine of women applicants to deny employment to those that are pregnant. ("Using pregnancy tests in hiring is discrimination against women.") (27)

A feminist perspective would not hail new technological developments as "liberating" because it would realize that the oppression of women is not the result of biology but of the social constructs around it. In this respect, it is paradoxical that the excesses of an impersonal technology developed by males in a sexist society can be viewed as important for the liberation of women. Advances in cloning, out of the womb reproduction, choosing the sex of one's child are sometimes considered of great importance for females. Some feminists consider that the elimination of menstruation or pregnancy would

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be beneficial, since pregnancy, for instance, is hazardous, "ugly" or "primitive". This can be viewed as the ultimate victory of patriarchal culture. Instead of viewing pregnancy as another existential dimension available to women who choose to explore it, sexism succeeds in making even women see pregnancy as barbaric and debasing. The truth is we do not know what we would think of pregnancy in a non-sexist society and what is usually barbaric about it is the lack of choice and the pressures that are brought to bear on women to become mothers. As for the new fancy modes of reproduction it would be good to remember that the burden of motherhood is not the nine-month gestational period but the lifelong relationship and the emotional commitment that develops between mother and child.

The theories that propose modifications of biological phenomena as important in the struggle for liberation seem short-sighted and contain the promise of a technological "fix". Technology will not erase 50,000 years of female oppression and technology that tries to dominate Nature is what has brought the human species to the brink of destruction and ecological absurdity.

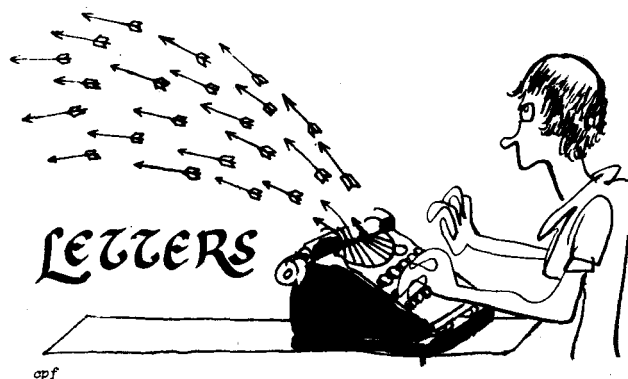
We do not have to go "beyond" nor to "overcome" biology because the physical body is not what is limiting us. In other words, biology is not where it's at. When elitist and rarefied research is presented as a service to women we have to realize that the rationalization for most of this research is an updated version of "Biology is Destiny" and another example of the sexual politics of science.

Rita Arditti



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Dear Editor,

I've got an idea that might help SESPA raise a little money. Readers of *Science for the People* who are at universities should urge the university libraries to subscribe to *SftP* for the library. This might not take too much work since university librarians often want to subscribe to just about everything. (I'll probably be able to do it here since I'm on the Physics Department Library Committee.) Not only would this bring in more money but it would also spread the word, since library copies might be read several times.

In solidarity
Bob Yaes

Memorial University of Newfoundland

Gentlepeople:

A bill drafted by the Mental Patient Law Project has recently been introduced in the California Assembly. AB 4481 gives psychiatric inmates the right to refuse treatment, specifically, psychosurgery, shock therapy and chemotherapy. Presently persons involuntarily committed in California's psychiatric facilities have the right to refuse lobotomy and shock therapy but lobotomies haven't been done since the Fifties and the right to refuse shock may be denied for "good cause" by the person in charge of the hospital.

The bill's first hearing was on June 10th before the Assembly Health Committee where it received a favorable recommendation. The opposition, namely, the AMA, the APA and the drug companies, has begun to mobilize its forces to prevent the bill from being passed. We need help. We need statements from people with direct experience with forced treatment in California. We need lots of letters sent to Assemblypersons in support of the bill. We need publicity.

My purpose in writing is to ask you to print a few lines on the bill in *Science for the People*.

Many thanks.

Sincerely,
Darlene Donal
Mental Patient Law Project
2637 Fulton St., Suite B
Berkeley, Ca. 94704

Dear Sisters and Brothers,

SftP resides in triplicate in our house whenever an issue appears. I have to admit I've never been able to get through an entire issue. However, this past issue was really valuable to me as a teacher. The first article I read was "Now Kids". I excitedly read it from beginning to end. It was great — full of good information, yet its style was clear and readable, without being general. I'm going to give it to the mother of one of the kids in my class who takes a large dose of Ritalin twice daily. The mother was confused, since she couldn't understand what the doctor said.

I think this issue was a good example of "for the People" readability, at least for me.

Thanks,
P.D.Q.

Dear Friends,

It seems as though a lot of *SftP* is devoted to self-examination. This is alright in principle, but it gets to be too much in practice for people who are not tightly or directly involved in SESPA activities. Regular non-scientist, non-engineer people, we think, would probably not like to see more than two or three pages an issue devoted to "Who Are We" or "Focus and Direction of *SftP*," etc. It seems as though so many Movement organizations and groups lost, or never found, their way to the people because they were transfixed by the mirror of criticism/self-criticism, self-evaluation. *SftP* is all there is for people in science fields, and it would be awful if that happened to you, too.

The answer to people like us is, of course, get involved! But a lot of us can't. We work, study, take care of kids and are into groups in our own areas which may parallel, but not coincide with the type of stuff SESPA and *SftP* are into. Many of us who read *SftP* aren't scientists or engineers or anything close to that at all, but are just interested in reading and supporting good perspectives. So we hope that those of you who are involved will consider us in formulating your editorial policies.

In general, as you know, your magazine and organization do a terrific job. We wish you, and will work for in our small way, all success in your efforts to make science for the people.

Tom and Denice Aguirre Johnston
Monterey Park, Calif.

Dear Editors,

I'm up to my eyes in work so this will be short and full of typing errors.

I think the article on the "professionalization" of computer programmers in the last issue is well done. Points are well argued and substantiated, but I'm not sure the author is entirely correct.

Most of the programmers I know work at Harvard as free lancers. They have a number of clients — professors in science or social science — for whom they write programs. I don't think these free lancers regard themselves as professionals. Yet their workplace is unregulated since their clients usually don't know much about programming.

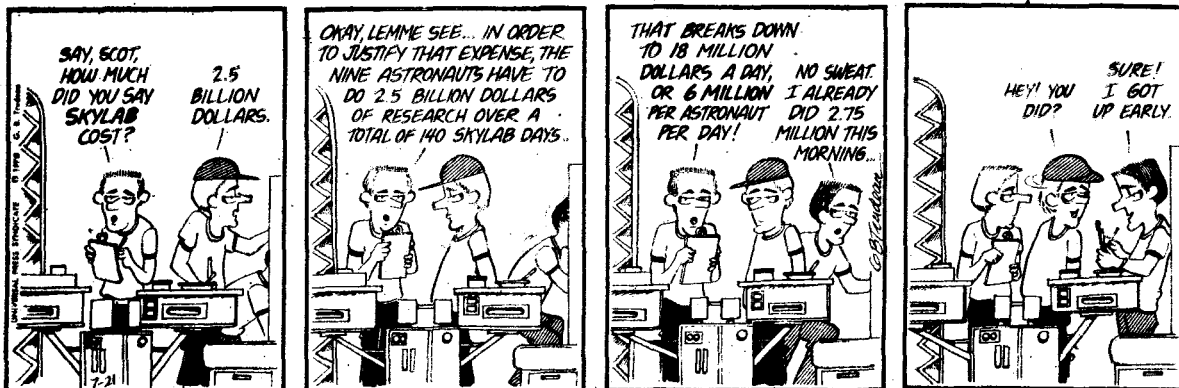
On the other hand, the insurance company, oil company, etc. "professional" programmers I've spoken to — and they are few — act like employees. They are assigned a piece of a task and do their job. I don't buy the argument that the work is hard to monitor. It is true that a programmer can not be evaluated on a second-to-second basis the way an assembly line worker can. But a competent manager — who was once a programmer — can easily evaluate finished products as they emerge. For one thing it would be easy for such a manager to tell how well the program works and whether it is efficient (the latter by computer costs). Moreover, the manager will have some notion of the time required to write and debug the program from his or her own experience.

The "professionalization" such as teachers have undergone has already extended to other fields. Engineering is universally accepted as a profession; yet many engineers are employees. In fact, many of them dislike their low status enough to go to business school so that they can get on the executive gravy train. Even young lawyers going into large law firms or older lawyers working in the trust department of a bank or for a large corporation are not independent professionals in the sense that the private practitioner is.

Yet somehow I think the author has not encompassed enough of the problem's complexity. I'd be damn surprised if programmers didn't see the move to "professionalize" their occupation as a good thing.

I hope I helped.

Tom Marx



REPORT from the SCIENCE TEACHING GROUP

The Science Teaching Group has concentrated in the last few months on sales of the 3 "Science and Society" pamphlets, on a Biology Teachers' Conference in Framingham and on consideration of new projects. Sales of the pamphlets have been going extremely well with both "The Energy Crisis" and "Genetic Engineering" (2000 each) nearly gone. The latter will be reprinted and a group is working on a new pamphlet on "The Politics of Ecology."

Our participation in last November's regional National Science Teachers' Association conference in Boston (See *SftP*, vol. VI, No. 2, p. 46) has generated unexpected dividends. Shortly after this meeting, a local high school teacher contacted us and asked if we would help out with a Massachusetts Biology Teachers' Association conference on "genetics". The conference was held on May 4 at Framingham State College. It turned out that three of us became the major portion of the program as we lead sessions on "Recent Progress in Genetics," "Social and Political Implications of Genetics," and "Genetics, Race and IQ." All 200 teachers attended the first 2 sessions and a majority the latter session. We found a lot of sympathy for our ideas and sold \$75 worth of literature (IQ issue of the magazine and pamphlets.) In addition, at one of the other workshops on the program, we discovered that a teacher who attended our sessions in November was now promoting teaching approaches with some of our material. It has really been very exciting to see that as a result of our efforts over the last few years, we have become a major resource for science teachers in the area. This is opening up all sorts of avenues for us to work with others.

As a result of our activities a group from the South End in Boston, interested in influencing the curricula in a soon-to-be opened grammar school, has asked us to criticize current science curricula and propose alternatives. The group represents an area which is a mixture of anglos, Spanish-speaking, blacks and other minority groups, and would like to see the school reflect the needs of the community.

A nutrition sub-group will be preparing materials both for teaching and for the *SftP* magazine.

Something Old Something New

Once again the American Association for the Advancement of Science (AAAS) will hold its annual meetings in New York, Jan., 1975. *This is not new.*

Once again Science for the People can be there carrying out its responsibilities to humankind by attacking, behind the mask of science, the technology and ideology of repression, exploitation, racism and sexism. *This would not be new.*

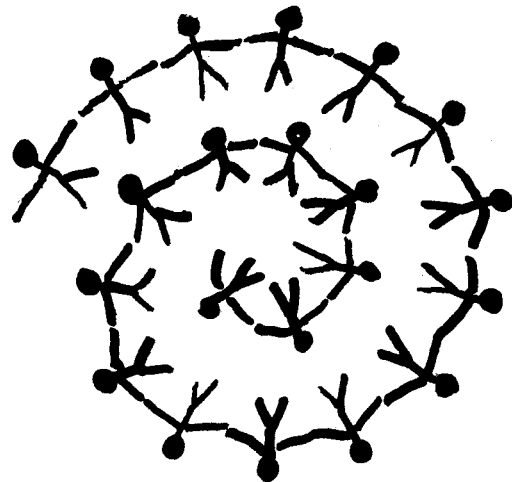
In 1969 Boston, 1970 Chicago, 1971 Philadelphia, 1972 New York, 1973 Mexico City, 1974 San Francisco — Science for the People was there.

In 1975, in New York, we can have actions to dramatize a definite political program, decided on collectively by a representative group from Science for the People nationwide, with invited participation of other political groups based on explicit principles of unity, carried out with discipline, and with agreed-upon leadership. *This would be new.*

Let us renew Science for the People. Let us forge in struggle a program for organization. Let us give this struggle form by an exemplary coalition in action in New York in January, 1975.

Contact us. We will call the first planning meeting for early November (probably in New York).

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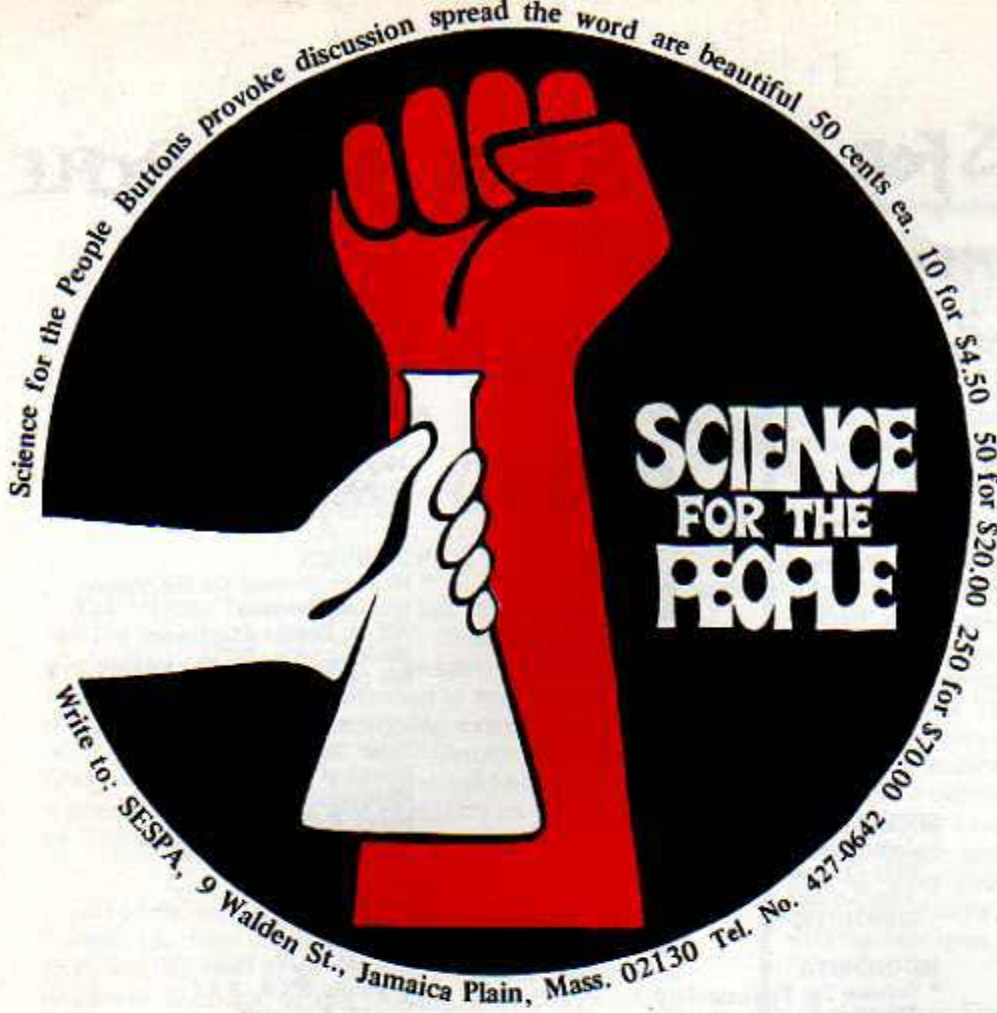
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SUBSCRIPTIONS TO SCIENCE FOR THE PEOPLE AND MEMBERSHIP IN SESPA

SESPA is defined by its activities. People who participate in the (mostly local) activities consider themselves members. Of course, there are people who through a variety of circumstances are not in a position to be active but would like to maintain contact. They also consider themselves members.

The magazine keeps us all in touch. It encourages people who may be isolated, presents examples of activities that are useful to local groups, brings issues and information to the attention of the readers, presents analytical articles and offers a forum for discussion. Hence it is a vital activity of SESPA. It is also the only regular national activity.

We need to know who the members are in order to continue to send *SCIENCE FOR THE PEOPLE* to them. Please supply the following information:

- Name:
 Address:
 Telephone:
 Occupation:
 (if student or unemployed please indicate)

- If you are working, do you work in industry [], government [], university [], other _____
- Local SESPA chapter or other group in which I'm active:
 - I am enclosing money according to the following scheme: (a) regular membership—\$12, (b) indigent membership—less than \$12, (c) affluent or sacrifice membership—more than \$12, (d) completely impoverished—nothing, (e) I have already paid.
 - I will sell ___ magazines. This can be done on consignment to bookstores and newsstands, to your colleagues, at meetings. (If you want to give some away free because you are organizing and can't pay for them, let us know)
 - I am attaching a list of names and addresses of people who I believe would be interested in the magazine. Please send them complimentary copies.
 - I would be willing to provide technical assistance to community, movement, or Third World groups in the areas of:

Please add any comments on the magazine or SESPA or your own circumstances. We welcome criticism, advice, and would like to get to know you.

SEND CHECKS TO: SESPA, 9 WALDEN ST., JAMAICA PLAIN, MASS. 02130