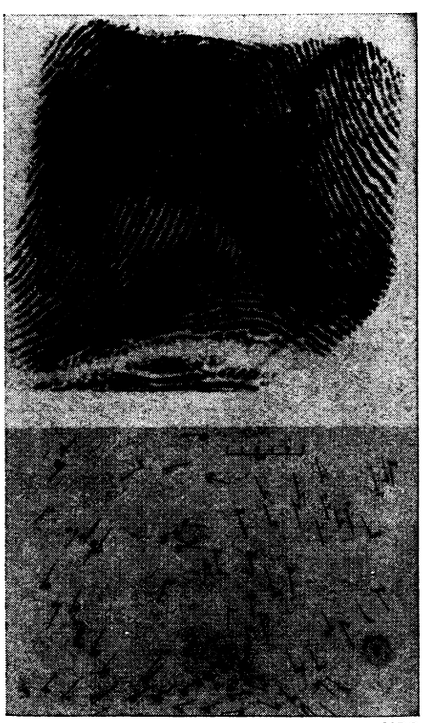
then stored in the machine's memory, along with a label identifying the fingerprint.

To make the process totally computerized, the descriptors filed in the computer would also have to be obtained from the fingerprint by an automatic reading device.

Two other studies, both financed by the Federal Bureau of Investigation, are aimed at finding out whether or not computers can be programmed to determine automatically the location and orientation of the minutiae of a single fingerprint.

Because neither of the studies are completed, the FBI and those concerned with the work at the Cornell Aeronautical Laboratories and the Autonetics



NBS

Fingerprint with overlay for computer.

Division of North-American Rockwell talk about their approach and progress only in general terms.

Dr. Morton Spooner of Cornell says the laboratory model developed there has been demonstrated to the FBI, and he hopes a report can be made public within the next six months.

The Autonetics laboratory model of a fingerprint reading device is still being tested, but is expected to be ready for demonstration by the end of June, about a year after the $115,000 contract was signed.

The FBI is being advised in its technical evaluation of the two systems by the Bureau of Standards. Which company will get the final contract for building the equipment, which must be able to scan and match up to 500,000 fingerprints a day, should be settled within six months, and production begun.

The advantage of an identification system that uses only one fingerprint, or even part of one, is clearly demonstrated in the Martin Luther King case. For James Earl Ray, the man sought as the assassin of Dr. King, the FBI has 10 fingerprints on file. Another set of 10 could have been quickly matched for certain identity within a minute or two.

In the King case, however, there were only a few latent prints with no clue as to which hand they came from.

It wasn't until mid-April that a clear print of a right thumb (number six in the Henry system) was obtained from a map in the Atlanta room where Ray, who had previously been identified under the alias of Eric Starvo Galt, had been staying.

Action then was fast. The FBI ordered a search of the fingerprint file of the 53,000 wanted fugitives, on the basis that the man suspected of shooting Dr. King could very well have a previous record. The computer that sorts the FBI cards, classified on the basis of 10 fingerprints, was programmed to eliminate all females, all non-whites, all males over 50 and all males under 25.

About 1,700 cards were left. These could then be scanned, not for all 10 prints but only for number six. The search started about 10 at night and by 9 the next morning, at about the 700th card, a match was found. The proposed system is expected to do such a job in a fraction of the time, if a satisfactory method of giving the computer sets of descriptors can be worked out either at Cornell or Autonetics.

PSYCHOANALYSTS

They want to be understood

Psychoanalysts in the past have not done much to counter the sneers and satire aimed at their profession. To them it's a cost of the kind of work they do.

They interpret jokes about the couch and Freud and criticism of the value of psychoanalysis and the scientific worth of analytic theories more or less as evidence of public fear. Ever since Freud, psychoanalysts have expected the public to react defensively against their probes of the unconscious.

But now the stakes are higher. The field of mental health is taking off in a big way. New community mental health centers promise to reach many thousands of people with a variety of non-analytic tools—drugs, new therapies and techniques aimed at changing behavior rather than solving internal conflicts.

A casualty of this head-long rush to action is likely to be interest in the unconscious psyche: Just the subject on which analysts have spent years building a body of information and theory.

And they're not about to sit by and watch the theoretical and practical structure, so long and hard in the making, be relegated to the scrap heap.

There is a danger that mental treatment will become too superficial, says Dr. Burness E. Moore, associate clinical professor at Yale University and a training analyst at the New York Psychoanalitic Institute. "The contribution of the psychoanalyst to theoretical ideas may be completely lost."

Faced with the threat of diminishing influence over mental health, the American Psychoanalytic Association decided not to counterattack, but to address itself to the public and those who influence public opinion.

"In the past, we made no effort," says Dr. Moore. "Now we are trying to represent ourselves as accurately as possible."

It has not been easy. From an initial reluctance even to talk to reporters, psychoanalysts have moved to restrained and cautious communication with the press.

Years of misinterpretation have built up a sense of wariness on the part of the analyst, explains Dr. Martin A. Berezin, Boston analyst on the Harvard faculty as well as the staffs of Beth-Israel and McLean Hospitals.

"Experience with a good deal of resistance and hostility has led older analysts to exercise great caution in dealing with the outside world," adds Dr. Moore.

Psychoanalysts are not accustomed to having to defend their profession. Individually, analysts have exercised considerable hegemony over the field of mental health.

In Boston hospitals, for instance, by far the greatest number of training psychiatrists are in fact psychoanalysts. (The difference between the two is that an analyst spends seven to eight years after psychiatric training at a psychoanalytic institute studying unconscious processes.) Most heads of psychiatric departments in Boston are analysts.

The same is true in other cities with psychoanalytic institutes, says Dr. Berezin. Nearly all analysts hold positions outside their private practice—most of them teaching posts. But the fact is not widely known since an analyst will often identify himself simply as a psychiatrist.

Contrary to popular conception, analysts have also been busy with social issues, Dr. Berezin points out. Of five

major task forces on the Joint Commission for Mental Health of Children, three are headed by analysts. And at its annual meeting in Boston last week, the Psychoanalytic Association held sessions on such topics as hippies, sex education and youth unrest—and this time they were publicized.

Psychoanalysts as a group have not usually received any credit for this kind of work, Dr. Berezin says. "When we wear so many hats, we are never identified as analysts. Now we are pushing identification a little."

But while psychoanalysts are easing into an information effort, they show no inclination to modify the discipline to fit community psychiatry. "If an analyst," says Dr. Berezin, "loses that sense of intrapsychic behavior, he stops being a psychoanalyst. I can't analyze a marriage. My expertise is to help the individual understand his conflicts."

The association has, however, officially backed community psychiatry. "We want to make it very clear that the organization is concerned with this," says Dr. Moore. "We should perhaps have done it earlier. It might have helped eliminate the concept of a psychoanalyst working only with one affluent patient and being unconcerned with the broader aspects of mental health."

Analysts, says Dr. Moore, will not decry other kinds of mental therapy, so long as they do not lose sight of the individual in a bureaucratic approach to mental health. ◇

MALADJUSTED CHILDREN

They don't all need therapy

There are an awful lot of maladjusted children in American schools; the boys are worse off than the girls; but many will get better with age, even in the face of a shortage of competent people to help them.

These are the results of a study of studies—some 50 surveys made over the past 44 years are included—undertaken at the University of Chicago.

Maladjustment serious enough to call for professional help runs about 10 percent in children aged 5 to 12. Sex differences emerge sharply, with 14 percent of the boys showing serious problems and only 5 percent of the girls afflicted.

Chicago's Prof. John C. Glidewell did the work at the request of the Joint Commission on Mental Health of Children, which plans to include it in a national report next year.

Dr. Glidewell says the study reveals no increase in maladjustment among elementary school children during the 44 years, although a number of other studies have suggested an increase of emotional disturbance among teenagers.

There is a word of caution: The information, taken as it is from previous surveys, is heavily weighted toward white middle-class children.

One recent study in slum areas, for instance, found an extraordinarily high rate of trouble: Nearly 70 percent of the 2,000 children studied had some adjustment problems, compared to the overall figure of 35 percent.

So far, there is no indication of a difference between races on level of maladjustment. The one piece of work that compared races, holding social class constant, was done in St. Louis, Mo., in the 1950's; Negroes showed a slightly lower level of psychiatric trouble than whites. But this work needs confirmation.

At a very basic level, the concept of maladjustment needs better definition. The concept has changed over the years; what would be considered maladjustment in 1922, such as breaking social norms, would no longer be viewed in that light. Some strange or rebellious behavior may be essentially healthy. How much represents true psychiatric disturbance requiring the assistance of mental health professionals is simply unknown.

Maladjustment, in Dr. Glidewell's terms, includes four types of problems: personal distress, as revealed through nervous tension, excessive daydreaming, crying or fearfulness and sleep troubles; social ineptness, such as apathy, withdrawal, or overaggressiveness; antisocial behavior, including lying, stealing and destructiveness, but not including delinquency, and problems of development, such as stuttering, bedwetting and temper tantrums.

Something like 35 percent of all school children have some trouble along these lines, but only 10 percent are serious enough to justify clinical attention.

Even then, the case for treating so many children is by no means established. Many children grow out of their emotional difficulty and there is some risk in referring them for psychiatric help.

Between 40 and 60 percent of the children will get better without psychiatric attention, explains Dr. Glidewell, and referring a child often stigmatizes him. Teachers are aware of this; they weigh the risks against possible benefits and refer about 3.7 percent of the children—when facilities are available.

Facilities, however, are not always available. "I don't want to leave the impression that there is no problem," says Dr. Glidewell, but it is not as large as the 10-percent figure would indicate. "I'm certainly not going to say we ought to build facilities to take care of 10 percent of all children." It is not feasible for one thing; 10 percent represents, in actual numbers, three million children.

STARTS JUNE 30

Relabeling oral contraceptives

The eight United States manufacturers of birth control pills have agreed upon nine pages of new labeling that the Food and Drug Administration has requested to call doctors' attention to possible dangers. The new labeling is to accompany all packages of oral contraceptives coming off the production line after June 30, and advertisements, which run only in professional journals, are to reflect the revision starting Sept. 1.

A meeting of the manufacturers was held in Washington at the request of Dr. Herbert L. Ley Jr., director of FDA's Bureau of Medicine (SN: 5/11 p. 449). The labeling was revised especially to inform physicians of recent British studies that show a seven- to tenfold increase in thromboembolic (bloodclot) deaths and diseases among users of birth control pills as compared with other women.

The new ADA labeling advises that if thrombophlebitis, cerebrovascular disorders, pulmonary embolism or retinal thrombosis should occur or be suspected, the pill should be discontinued immediately.

A study comparable to that carried out in Great Britain is under way in the United States and will be completed early next year.

The British studies concluded:

Category	Mortality Rates		Hospitalization Rates (Morbidity)
	Age 20-34	Age 35-44	Age 20-44
Users of oral contraceptives	1.5/100,000	3.9/100,000	47/100,000
Non-users	0.2/100,000	0.5/100,000	5/100,000