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... Studies of psychiatric effectiveness, whether their conclusions are favorable or not, characteristically overlook the meaning of the patient's "choice" of adaptive responses to a painful world. One may say that the patient and the person reporting spontaneous remission of symptoms are equally programmed by their experiences, but that the program elicits a different adaptation in each case. Isn't it fortunate, then, that clinical psychiatry can serve those whose programs dictate a mode of secular medical assistance? The very fact of therapy may influence the individual's "choice" of responses, but that proves nothing more than its perceived usefulness. Realistically, psychiatric insights are so influential that whether they are absolutely true or not is historically irrelevant. They came into existence to meet a need, and modern society could not be imagined without them. They are probably necessary first steps toward a true science of the mind.

Don Bronkema

110 Bleecker Street, New York 10012

. . . If the hypothesis is correct, and I as an interested nonprofessional find the evidence impressive, that psychoanalysis does not in fact contribute to the cure of mental disease or to measurable improvement in mental health, what should the scientific community do about it? The Hoxsey clinic with its cures for cancer was eventually effectively quarantined on the basis of scientific opinion. Recently we have had the "battery additive" and Krebiozen cases. These are simpler issues and much less dangerous for the scientific community. The responsibility of the scientist in shielding the public from more pervasive possible frauds is even greater. If typical psychoanalysis is basically a fraud insofar as it does not deliver what it purports to deliver, and in return for a fee. then surely something should be done about it.

As the evidence accumulates and the minority of psychologists and psychiatrists become more vocal, it may be wise for a responsible body, such as the National Academy of Sciences, to set up a committee to study the matter before it is sensationalized by the press some years hence. One of the special difficulties that can be anticipated is that deeply religious believers in the mythical thought structure of Freudian analysis are to be found at the highest educational levels. Will such an enquiry into basic beliefs be permitted by those who feel that psychiatry has helped them personally? Has society a right to ask for such validation? I believe it has *only* as long as fees are charged. Perhaps herein lies the eventual solution to the psychiatrists' proposal reported in Linn's book review. Surely if believers in the psychoanalytic world-view were to take their rightful place as another religion or way of life, they could then carry their gospel of "psychiatry out of the hospitals and clinics into the community" as a charitable service.

RUSTUM ROY

Materials Research Laboratory, Pennsylvania State University, University Park 16802

Rimland's letter reveals anger over the failure of psychiatrists to make impartial judgments about the effectiveness of their daily work and about the soundness of their theories. . . Psychiatry and psychology are infant sciences in the 20th century, swathed in superstition and under authoritarian control. The visible inadequacies of psychiatry should be not a source of anger but rather a spur to the inquiring mind; they should also be a stimulus to scientific humility.

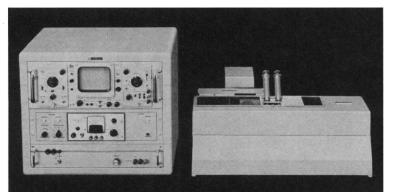
The psychiatrists of the 21st century will look back with amusement and tolerance (let us hope) at the psychiatry of today. Let us pray that they are that much ahead of us!

JOHN T. FLYNN Beekman-Downtown Hospital, 170 William Street, New York 10038

Specialization and Medical Education

The lucid letters of Mellinkoff and King (11 Nov.) go to the heart of several of the many complex problems afflicting medical education, whereas much of the current writing on the subject is characterized by stereotypical and wishful thinking. For example, proposals to produce greater numbers of general practitioners more often reflect the myth of the old-fashioned family doctor than familiarity with the history of medicine and current medical needs and social problems. Ignored, among other facts, are the increasing mobility of the average individual and average family, and the increasing demand by the public for direct access to specialists.

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Among the many economic problems, insufficient attention is given to the high cost of medical education. If we are to recruit enough highly qualified students to study medicine, medical education will have to be subsidized by direct federal grants to the student, without a means test. While I am familiar with noteworthy exceptions, most medical students are being contaminated by a value gradient along which "basic research" is placed in a hallowed shrine, with clinical or applied research and teaching in descending order of value. That such valuation is specious is recognized by those department chairmen, as King indicates, who encourage the highest standards in every area of professional work. and who thereby tend to elicit the most productive and creative work from students and co-workers.

H. ROBERT BLANK Department of Psychiatry, Albert Einstein College of Medicine, New York 10061

One is relieved to read that the more medicine tends to become a science "the more it becomes simple and easy to understand" (Mitchell, Letters, 11 Nov.). In one field, radiology, the time when it will be simple and easy seems to be receding. So much knowledge has been acquired since 1945 that one person cannot know it all; not that it is too difficult; there is too much.

Radiation therapy is a separate discipline; curable types of cancer (larynx, cervix, tongue, and others) are now being treated by people with special experience and proven ability. The scope of diagnostic radiology in a large hospital practice is too great for any one man to handle with authority. Therefore, it is divided into subspecialties, not only according to organ systems, but according to the age of the patient. Pediatric radiology has some 100 practitioners in the United States, even though it became an established subspecialty only in the past 20 years. Knowledge in this field alone has increased to the extent that one man can no longer be expected to be thoroughly familiar with all aspects of radiographic manifestations of diseases in children.

Generally 5 to 6 years of training after the internship are necessary for a radiologist to acquire expert knowledge in an area of pediatric x-ray diagnosis. Some specialize in children's diseases of the heart, especially congenital heart disease, others in diseases of the genitourinary tract, still others in dis-

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eases of the skeleton; of the latter, one man is particularly interested in the pelvic bones. There is one person in the country who can rightfully be called a pediatric neuroradiologist.

One must agree with Mitchell that "a foundation of trained clinical observation is necessary" in medicine. It is hard to see how this makes specialization unnecessary. Even if man's capacity for knowledge were limitless, his time to acquire it is not. A boy with a removable brain tumor or a surgically curable congenital cardiac malformation would benefit more from being seen by a physician with relevant special experience than by one without it.

Specialization is not evil; what is to be deplored is *specialism*, a parochial attitude. The general physician is not immune to it, as we can see when he deplores specialization.

STEVEN E. Ross University of California School of Medicine, San Francisco 94122

Automatic Language Processing: Source of Funds

In discussing the report of the Automatic Language Processing Advisory Committee, National Academy of Sciences-National Research Council entitled Language and Machines: Computers in Translation and Linguistics, Bryce Nelson reported an interview with R. Ross Macdonald, director of the Georgetown University Machine Translation Research Project (6 Jan., p. 59). According to the article Macdonald denied that the National Science Foundation had ever supported the Georgetown MT group-as stated in the Automatic Language Processing Advisory Committee report. "Macdonald argued that this was one of the errors in the report, since it was known that all NSF money given to the Georgetown project came from the CIA." It happens that the National Science Foundation did make grants (G-2723, G-3867, and G-5513) of \$106,000 to the Georgetown MT Project. My authority for these figures is page v of the Georgetown University Machine Translation Research Project "General Report" (June 1963) prepared by R. Ross Macdonald.

A. HOOD ROBERTS Automatic Language Processing Advisory Committee, National Academy of Sciences, Washington, D.C. 20418

10 FEBRUARY 1967

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