

a series of carefully controlled clinical trials that take into account etiological and diagnostic issues in insomnia, and objective and subjective assessments of sleep, mood, and performance, as well as side effects resulting from various types of treatment. The new studies by Oswald (3) and by Church and Johnson (4) appear to be genuine contributions along these lines. They both point to cumulatively adverse daytime effects of flurazepam on coordination when it is used continuously at night by poor sleepers. Among other implications, this delayed action suggests potentially serious and unrecognized hazards in automobile driving and in the consumption of alcohol, tranquilizers, and other central nervous system depressants. Moreover, Church and Johnson emphasize their inability to document any improvement in various dimensions of daytime mood or performance, even in those insomniacs whose sleep apparently improved because of medication.

It is unfortunate that Medd did not include a reference to the Church and Johnson study in his letter to *Science*; in their article the authors acknowledge the support this work had received from Hoffmann-La Roche Inc., and we believe Roche deserves full credit for its part in sponsoring this research. The IOM report recognizes the contribution of the pharmaceutical industry to clinical investigations of sleep problems and therapeutics, and it anticipates an extension of such research in years to come. It also calls for federal and philanthropic support for studies in this area of widespread human distress; as pointed out by Daniel Kripke (Letters, 6 July, p. 8) this support has been insufficient—the common problems of unsatisfactory sleep having held a surprisingly low priority on the nation's science agenda.

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## Education of the Handicapped

Recently the Supreme Court ruled that handicapped persons have no right to attend school if they can't meet the physical qualifications (1). I, and many other handicapped scientists, disagree, and we would hope the majority of educators will not feel obligated to actively implement this decision. As education aims to help people develop the total dimensions of their lives by providing some knowledge to satisfy their souls together with other necessary and useful knowledge of practical value in living, it is not fitting to deny any citizen of this country access to the source of such benefits.

Unfortunately, many handicapped persons have been and continue to be denied this opportunity. Many of us have not been given the same educational opportunities available to our somewhat more able-bodied brethren. We are stereotyped as to what we are able to do, that is, you can't do \_\_\_\_ or \_\_\_\_ or \_\_\_\_ if you are blind or deaf or in a wheelchair or whatever. Individuals without knowledge of what it means to be handicapped make major decisions for us in light of what *they* think a handicapped person is capable of doing. Limits imposed upon our involvement in the educational system and the institution of constraints upon the pursuit of knowledge, regardless of individual talents, by those who may or may not be aware of what can be or has been accomplished by the handicapped are discriminatory actions.

Handicapped persons are presently represented in professions ranging from medicine and law to computer sciences and pure physics (2). Their achievements are positive indications that physical impairments do not necessarily interfere with the practice of any profession. However, people with physical and mental disabilities must adjust to their problems on their own terms, and the psychological aspects of this adjustment are not understood. Why do some handicapped persons succeed while others do not? We do not know. Some people are highly independent; they neither want nor need

help. Others require much assistance. Flexibility of approach coupled with a sensitivity for individual needs is necessary when educational institutions decide about admitting a handicapped student. Those who have the *ability* and possess the *desire* and *will* to succeed should have *access* to further personal and professional development. The admissions committee of any institution should only be concerned with whether a handicapped person's desire and pride are equal to his or her ambition. The particular handicap is not relevant.

Handicapped scientists have had considerable interaction with the educational establishment. Some of them belong. We are aware of the social, political, and financial crises that have developed since 1960. But many of us feel the establishment has only reacted, blamed the outside environment, with few creative effects being made to resolve the problems. The emphasis has been on maintaining the status quo. We wish to ensure that the handicapped are not burdened by this lack of creativity but are educated in programs that do more than pay lip service to our problems. If this requires alternative uses of the funds appropriated from our tax money and close surveillance to ensure needs are met and the handicapped are not being excluded from activities for which they are "otherwise qualified," then ways must be found to do these things.

It should be understood that changes in the physical state of the human body are sometimes difficult to accept by casual observers of the phenomena because many such observers look upon these transformations as tragedies. For those minds which must live within the physical limits of the transformation, the capacity to struggle and adapt provides a means to make life whole and coherent even if painful and inconvenient. Human development as a primary goal of institutions purporting to maintain and advance civilization should include such people without subterfuge. We believe Congress, by including Section 504 in the Rehabilitation Act, wished to spur the development of inspired educational programs to prepare the handicapped academically and psychologically for life.

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