Mr. GORDON. I am talking about how you would allocate our medical resources.

Dr. FREEDMAN. I don't know. I think we have to take this issue seriously. And in psychopharmacology I would say that one could seriously try to find drugs that, in terms of their molecular mode of action, might be more specific for certain kinds of severe, unrelenting anxiety. I think it might save you an awful lot of money that goes into psychotherapy, expensive psychotherapy, and not always effective psychotherapy. Perhaps psychosomatic disorders—public health problem—could eventually be helped. I can't throw the drugs out because they are around, you see. And this is the way with science. If it is there, you want to find out more so that you can do more with it. The major tranquilizers influence an enormous public health problem—half of our hospital beds.

So I am not willing to throw out the sedative anti-anxiety drugs as a banality. The fact that you and I both know that society can exist without them doesn't mean that either of us have assessed the cost in human suffering.

And that is all the further I can go.

A major consequence of all these drugs has been the astonishing advance in data on the chemical systems which regulate brain functions. With the support of the National Institutes with their programs in psychopharmacology and biobehavioral sciences, there have been genuinely new thrusts in psychiatry. Behavior cannot be explained solely by chemistry, but we are far readier to know what part hormones and chemicals may play in disordered behavior and when in a given disorder changes in brain chemistry may be important. Such data takes years to develop but can provide elegant control over the body's molecular systems and the possibility for a rational design of new molecular approaches, as well as understanding disease mechanisms. Such basic pharmacological research has been advanced in our field. Research has also been initiated into the causes of mental disorders and into more precise means of identifying different subpopulations of patients for whom such drugs might be specific.

If I could turn to the need for researchers, I would point out that the consequence has been an armamentarium of research techniques and a small cadre of knowledgeable experts who are advancing the edge of knowledge. This entails an interplay between research and its application, between laboratories and the clinic. It is exactly this interplay which leads to ever-increasing precision in treatment. Each study builds upon the next, leading, often slowly, but inexorably, to the goal of the right drug to be used rationally at the right time in the course of a mental disorder occurring in a specific person.

This not only takes time but an appropriate environment and something more than a medical degree. It requires the skill developed over the last 30 years in the general area of clinical investigations. With psychotropic drugs, it also involves the analysis of behavior and related social systems.

This area is known as clinical pharmacology and clinical psychopharmacology, which is intrinsically coupled to its basic research. This cadre of researchers is small and entirely inadequate to our needs.