

Humanities I

Mrs. Van Zant

Unit 4 Exploring Man's Mind

Re-designing Man: Science + Human Values:

Content Summary:

This filmstrip lesson opens with a brief, candid case history of a man whose pain was eased by E.S.B., electrical stimulation of the brain. There follows a description of the traditional awe man has felt for the brain, and there is then traced the work of the famed pioneer in neuro-surgery, Wilder Penfield - in particular, his work in brain mapping and pre-surgical brain stimulation. This is continued with an exploration of E. S.B. linked behavior--control experiments conducted on monkeys and bulls by Jose Delgado. The film lesson points out that E. S. B. is limited and unpredictable, making it an unreliable tool for mass behavior control, and examines other potential uses of E. S. B., such as pacifying criminals, the lesson poses the question, whether it is better to free the criminal and control his mind, or leave him in prison. This is followed in the filmed lesson by a survey of surgical brain treatments, such as the once popular lobotomy, noting that such techniques have been performed on under-protected members of society, leading an outspoken Congressman (Louis Stokes) to propose an absolute ban on psychosurgery. The lesson continues by giving an examination of biofeedback, whereby people learn to relax themselves; visceral learning, whereby feedback is applied to teach control of "involuntary" bodily functions; - and the use of psychochemicals, is also explored. Further, described is the experimental work of Dr. James McConnell, with planarian flat worms and rats, which suggest that learning may be chemically transferrable among individuals. The film lesson concludes with questions on the possible use of psychochemicals, E. S.B. and psychosurgery to control masses of people.

Objectives:

Students should be able to describe and discuss three basic mind-altering techniques: E. S.B., psychochemicals, psychosurgery.

Students should be able to identify value concerns others have voiced about mind altering procedures, and relate these to the values of society.

Students should be able to speculate on the possible uses of mind-altering techniques, commenting on these terms in their own values.

Students should be able to express the realization that mind-altering techniques can affect them at an acutely personal level, involving their very nature as human beings.

Social/Humanistic Questions:

1. Many methods of behavior control are practiced today; among them--electrical stimulation of the brain, psychosurgery, psychochemicals, and biofeedback. Should science have the right to free inquiry in an area so closely related to the source of human dignity and individuality? Is the brain the source of our humanity?
- ② José Delgado himself has considered the possible abuses of his work. He concludes that the control of large groups by means E. S. B. would be impossible. What arguments does he use to support this conclusion?
3. The use of E. S. B. to cure neurological diseases is seen as beneficial. Is there any difference between using E. S. B. for diagnostic or temporary control of individuals and the long term use of E. S. B. to modify behaviour and personality?
4. The frontal lobotomy is a kind of psychosurgery mentioned in the programme. What is one disadvantage of treating a patient with this surgical technique?
5. If it were possible to reduce violence, to increase intelligence, and to make people happy through E. S. B., would you do it? Do you have any objections to such alterations?
6. Traditionally, governments have controlled citizens through laws, propaganda and censorship. Do you think such control is necessary? Can you imagine any situations in which a government would want to control the thoughts and moods of every individual?
7. What are some of the social benefits which might result from widespread use of behavior control? Emptying the prisons? Ending war? Improving intelligence?

Scientific Questions:

- ①. The brain has long been considered the source of man's humanity and uniqueness. Are there other human organs which are more unique? Is man really that different from other animals? why?
2. In the past, evolution has been a long, slow process, involving the continuous interaction of organism and environment. Can you see how sudden alterations in the environment, such as electrical stimulation of the brain, might rapidly change the organism and its evolution?
- ③. With electrical stimulation of the brain, José Delgado has learned to control moods and feelings, but not specific behavior. James McConnell, however, can control specific behavior in worms through chemical transfers. Can you imagine some sort of combination, in which specific behavior chemicals are administered in conjunction with electrical stimulations?

4. In pacifying a monkey and a bull, Delgado altered behavior which was genetically determined. The fighting bull is bred to be aggressive and the rhesus monkey is traditionally violent. To what extent is violence a psychological trait..... to what extent is it fostered by environment and social life? Is it ;more permissible to tamper with genetically inherited aggression or aggression which is learned?

5. It is well known that fluoride is added to many local water supplies to help prevent tooth decay. Some people think their water contains too much fluoride; but because the government has ultimate control, the individual has no choice. Might the government administer psychochemicals in the same way, claiming that such additives improves the people's mental health?

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