

SUMMARY AND DISCUSSION

Under the influence of marihuana changes in personality as shown by alterations in test performance are slight. They are not statistically significant and indicate only tendencies or trends. Moreover, the drug effect is not always in proportion to the amount taken, nor are the changes consistently in one direction. In many instances the effect of small doses (2 cc.) or of marihuana cigarettes is the opposite of the effect of larger doses (5 cc.) (2)

(2) While sufficient experimentation has not been made to validate the finding, it should be noted that the personality changes produced by 2 cc. or marihuana cigarettes are almost always in agreement in contrast to the changes resulting from the ingestion of 5 cc. The 2 cc. Dosage apparently more nearly approximates the amount a person would take if left to his own devices.

The personality changes observed when the subject is under the influence of 2 cc. of marihuana or marihuana cigarettes demonstrate that the subject experiences some reduction in drive, less objectivity in evaluating situations, less aggression, more self-confidence and a generally more favorable attitude toward himself. These reactions can be ascribed to two main causes, namely, an increased feeling of relaxation and disinhibition and increased self-confidence. As the drug relaxes the subject, the restraints which he normally imposes on himself are loosened and he talks more freely than he does in his undrugged state. Things which under ordinary circumstances he would not speak about are now given expression. Metaphysical problems which in the undrugged state he would be unwilling to discuss, sexual ideas he would ordinarily hesitate to mention, jokes without point, are all part of the oral stream released by the marihuana.

At the same time that he verbalizes more freely, there is a reduction in the individual's critical faculty. This is probably due both to the intellectual confusion produced by the drug and to the less exacting attitude his feeling of relaxation induces. He holds himself less rigidly to the standards of his undrugged phase and does not drive himself to achieve. He is satisfied with himself and willing to accept himself as he is. This self-satisfaction undoubtedly helps produce the feeling of self-confidence which allows the subject to come out more freely in fields which he formerly avoided. This increased confidence expresses itself primarily through oral rather than physical channels. Physically the subject reports pleasant sensations of "drifting" and "floating" and he allows himself to become enveloped in a pleasant lassitude.

After the administration of larger doses of marihuana (5 cc.) the pleasurable sensations appear to be outweighed by concomitant feelings of anxiety and, in some cases, of physical distress, such as nausea. Under these circumstances, for many subjects there is little increase in confidence but rather heightened insecurity which precludes outgoing reactions and tends to evoke generally negativistic attitudes to most stimuli.

It is important to note that neither the ingestion of marihuana nor the smoking of marihuana cigarettes affects the basic outlook of the individual except in a very few instances and to a very slight degree. In general the subjects who are withdrawn and introversive stay that way, those who are outgoing remain so, and so on. Where changes occur the shift is so slight as to be negligible. In other words reactions which are natively alien to the individual cannot be induced by the ingestion or smoking of the drug.

Although in most instances the effects of the drug are the same for the user and the non-user, there are some differences both in kind and extent. Where the effects for the two groups are in the same direction they generally are more marked in the case of the non-user. This is not unexpected in view of the non-user's lack of habituation to the drug action. For the nonuser his present experience is a strange, even hazardous one, and the uncertainty and anxiety attendant upon this impairs the sense of well-being which the drug produces in the user. Thus the non-user frequently feels less secure when he is "high" than he does normally and is less well adjusted than he is in ordinary

circumstances.

When the productions of the undrugged marihuana user are studied, certain personality traits which serve to differentiate him from the non-user and from the "average" individual can be discerned. As a group the marihuana users studied here were either inhibited emotionally or turned in on themselves, making little response to stimuli in the world about them. People with this type of personality generally have difficulty adjusting to others and are not at ease in social situations. This withdrawal from social contacts apparently finds little compensatory or sublimating activity elsewhere. These subjects did not have a desire or urge to occupy themselves creatively in a manner which might prove socially useful. They showed a tendency to drift along in passive fashion and gave a good portion of their attention to relatively unimportant matters. These men were poorly adjusted, lonely and insecure. As indicated by their history they seldom achieved good heterosexual adjustment.

CONCLUSIONS

1. Under the influence of marihuana the basic personality structure of the individual does not change but some of the more superficial aspects of his behavior show alteration.
2. With the use of marihuana the individual experiences increased feelings of relaxation, disinhibition and self-confidence.
3. The new feeling of self-confidence induced by the drug expresses itself primarily through oral rather than through physical activity. There is some indication of a diminution in physical activity.
4. The disinhibition which results from the use of marihuana releases what is latent in the individual's thoughts and emotions but does not evoke responses which would be totally alien to him in his undrugged state.
5. Marihuana not only releases pleasant reactions but also feelings of anxiety.
6. Individuals with a limited capacity for effective experience and who have difficulty in making social contacts are more likely to resort to marihuana than those more capable of outgoing responses.

Family and Community Ideologies

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At the outset of the study it seemed worth while to supplement the quantitative data by some qualitative procedures of the projective type which might throw light on the social reactions of the individuals who were being studied. One of the methods that has shown its possibilities, particularly in its use with children, is the play technique in which the individual is permitted to give free expression to some of his unconscious motivations in a way that is not immediately apparent to him. The limitation of this technique is the fact that it is highly interpretive, but it has the advantage of permitting observations of the subject's personality reactions in problem situations.

Such a study was accordingly carried out on 18 subjects in the early part of the investigation.

METHOD

Two situations were studied: one, subsequently to be referred to as the family set-up, in which toys were used to build an apartment or home, and another, subsequently to be known as the community set-up, in which a second variety of toys were used to construct a town setting.

The Family Set-up

The equipment used in this part of the study consisted of a box of household toys of the type available in the ten-cent store, including beds, dressers, chairs, tables, sinks, a stove, a bathtub, a wash basin, a piano, lamps, flower boxes, a telephone, doll sets of a man, woman, boy, girl, and maid, and, in addition, several small wooden slats which were intended to be used as room partitions.

The box of toys and materials was presented to the subject with the following directions: "Here are a number of toys

which can be placed in such a manner that a house can be built from them. You are supposed to be this doll (man). Go ahead and build yourself a house or apartment. You may use as few or as many toys as you wish. You may also make believe you are a bachelor or a married man with or without a family."

The Community Set-up

In studying the community set-up the following items were employed: eighteen wooden houses, trees, cars, trucks, fire engines, an ambulance, a radio police car, a railroad train, airplanes, and numerous figures representing men, women, and children from different walks of life. All these toys were handed to the subject at the same time with the instruction to build a town or city. As in the family set-up, no further help or suggestions were given.

The actual method of handling these materials allows for two approaches. In the free method the subject is encouraged to play with any toy and to create and act out any situation that the nature of the toy suggests to him. No help, clues, or hints are given. In the controlled methods either the subject is told to create a specific pattern or his responses and reactions to a predetermined particular situation are elicited. Both methods were used in this study.

After the subject had completed either his family or his community set-up and answered questions regarding certain situations about which the examiner had questioned him the following points were investigated: (1) subject's marital status, both real and assumed; (2) type of home he built for himself (number of rooms, type of furnishing); (3) subject's assumed occupation; (4) monthly income and rent which he posited; (5) his reaction to attempted burglary; (6) his reaction to his wife's and his own infidelity; and (7) the attitude he would take toward civic problems if given a position of responsibility such as mayor. In addition, the examiner appraised the subject's neatness and orderliness in his home and community setup. The experiment was given first when the subject was undrugged and then when he was under the influence of marihuana.

FINDINGS

Results were collated in terms of the type and frequency of responses to different situations both before and after taking marihuana and in terms of number of items (toys) employed in the set- up, as, for example, in the case of the home situation, the number of rooms the subject thought necessary for his apartment and the amount of rent he thought he ought to pay and its relation to the income he posited for himself; in the case of the community set- up, the number of times the subject provided for ambulances, firemen, and policemen; in the case of the subject's reaction to burglary, whether he took a passive or a resistant attitude toward the burglary and whether he assumed the burglar had absconded with most of the property and so on; in the case of his attitude toward his wife's adultery, whether he thought he ought to divorce her or try for reconciliation; and, when the subject was unfaithful, whether he thought his wife ought to forgive his delinquency.

In most cases comparisons between responses or reactions showed little difference in attitude before and after the ingestion of marihuana and therefore it would not be too profitable in this short summary of the work to present all the data obtained. However, by way of illustrating the type of material procured, the following tables are given:

(TABLE 20)

(TABLE 21)

The majority of the patients, though unmarried in real life, assumed families and responsibilities in the play situation, and in a free situation acted out family activities and ideologies. These figures reveal that, on the average, the subjects when under the influence of the drug tended to build apartments with somewhat fewer rooms. The impression of the examiner was that this was due primarily to the subject's desire to get through with the task as quickly as possible in order to return to his room to rest and sleep.

(TABLE 22)

A "make-believe" sickness or accident necessitating the use of an ambulance was the most frequently observed play pattern. When the subjects were under the influence of the drug the incidence of the ambulance and the police was

considerably less than it was when they were in the undrugged state.

(TABLE 23)

The most frequent form of passive reaction to his wife's infidelity was that the subject would pack up and leave home. The aggressive reactions consisted of ordering the wife out of the home in three instances, jailing the wife and lover in one instance, throwing the wife out in one instance, killing the lover but leaving the wife unmolested in one instance, and beating up the lover and leaving the wife unharmed in one instance.

The following are examples of subjects' responses to the adultery situation. When he was facing the pretended situation before taking marihuana, one subject immediately left his house, borrowed money from his employer, and traveled to the West Coast. After he arrived there he proceeded to drink and in due time became a derelict on the Barbary Coast. When asked about his children he said, "That's closed with the rest of the chapter. Let her ardent lover support the children. I take on an assumed name. Others might get a divorce and custody of the children but in my case my home life would be a closed chapter." After the administration of marihuana he still showed a passive attitude, but, having assumed the role of a psychologist, he felt obliged to act accordingly. At first he considered divorce action, but since that would deprive the children of a home, he finally forgave his wife. Then he stopped in his contemplations, looked at the examiner and said, "Why do I become altruistic? . . . That's beyond me . . . Maybe I become a martyr . . . I commit an act of martyrdom." Another subject, when in the undrugged condition, ordered his wife out of the house and later divorced her. In the drugged state customary procedures were reversed. The subject went to his parents and remained passively at home while his mother unsuccessfully tried to bring about a reconciliation.

The subject's attitude toward adultery did not change in the drugged state. The data in Table 24 illustrate the fact that ingestion of marihuana generally does not alter the subject's basic attitude.

(TABLE 24)

Practically all the subjects approved of saloons. Gambling was rejected because it deprives wives and children of money and leads to trouble. A heavy loser may try to recoup his losses through holdups, and fights and homicide may develop from quarrels. Prostitution was condoned by about 50 per cent of the subjects both before and after the ingestion of the drug, but the use of marihuana was frowned upon more often when the subject was undrugged than when he was in the drugged state.

(TABLE 25)

SUMMARY AND CONCLUSIONS

Eighteen subjects who participated in the marihuana study were subjected to the play situation with the idea of seeing whether the pattern of play or the ideas investigated were materially altered in consequence of the ingestion of the marihuana. Among the ideologies which were appraised were: (1) attitude toward family set-up; (2) attitude toward different occupations; (3) attitude toward income; (4) attitude toward situations ordinarily calling for aggression, namely an attempted burglary of his home and sexual infidelity on the part of his wife; (5) attitude toward authority.

In general the subject's attitude toward family and community ideologies as manifested in play did not change markedly as a result of the ingestion of marihuana. The subjects (in play) were not intolerant of infidelity or aggressive toward lawbreakers either before or after the ingestion of marihuana. On the whole the initial passive reactions already observed in other parts of the study were likewise observed in the play situation experiment. The only very definite change as a result of the ingestion of marihuana was in their attitude toward the drug itself. Without marihuana only 4 out of 14 subjects said they would tolerate the sale of marihuana while after ingestion 8 of them were in favor of this.

Another significant manifestation in the play situation pertains to the construction of the community set-up. In general

the community was less orderly and well organized when the subjects had had marihuana. It is probable that this poor organization may be ascribed to the generally indifferent attitude and lack of motor coordination already observed in the more controlled studies.

On the whole, the experiment with play technique gave less information as to the effect of marihuana on subjects than had been hoped for. This may have been due to the incompleteness of the method employed or possibly to the fact that this technique is designed to give data about the basic personality of the individual rather than such alterations in it as might be caused by pharmacological agents.