PSYCHIC DRIVING

D. EWEN CAMERON, M. D., MONTREAL, CANADA [1]

INTRODUCTION

The development of readily operated recording devices, and particularly of the magnetic tape recorders with their high fidelity, early led to reports by a number of investigators of their value in psychotherapy (1).

In June 1953, in the attempt to enable a highly defensive patient to identify an important dynamic, her relevant sentences were swung continuously back and forth some 10 or 15 times through the playback head. It was observed that the patient became increasingly uncomfortable, and as the repetition was carried on some 30 times she identified the dynamic. As the continual repetition progressed, she showed increasing disturbance and settled down only when the recorder was stopped.

Our attention was at once caught by this hint of a possible potency concealed in this procedure. Further immediate trials with other patients already in psychotherapy strengthened our interest in the possibility that continuously repeated playback of dynamic material was a gateway through which we might pass to a new field of psychotherapeutic methods. This paper represents the exploration of this gateway and of this field during the last year.

The procedure consists essentially in insuring the extended and repeated reaction of the patient to: (1) his own verbal cues—"autopsychic driving"; or (2) cues verbalized by others, but based on his known psychodynamics—"heteropsychic driving." Since this compels a continued response within a field largely limited by the cue material selected, it has been termed "psychic driving." The term "cue" is used to indicate that the material was selected because it triggers into expression a whole community of related topics. The effectiveness of the procedure has been studied under a variety of conditions, among them drug disinhibition, ordinary and prolonged sleep treatment, hypnosis under stimulant drugs and after prolonged psychological isolation.

[1] Professor of Psychiatry, McGill University.

PROCEDURE

The procedure requires a high fidelity magnetic tape recorder. The portion of tape carrying the selected material is cut out, made into a loop, and driven continuously.

Autopsychic driving calls for the selection of a key statement made by the patient. This is exemplified in the case below:

A 40-year-old French-Canadian woman sought help because of long-lasting feelings of depression and periodic abdominal pains for which no organic basis could be found. She felt intensely rejected by her husband, and, back of that lay a long period of rejection by her mother. During treatment, she made the following statement, which was set up as a driving circuit: "I don't know what I did, but my mother told me, 'If you don't keep quiet, I'm going to leave you behind.' Well, I know I stopped—you know—I don't know what I was doing, but I know I stopped—and I was so afraid that—after that—well, I could not move; I was watching her all the time and keeping close to her. I know the—something was happening, and I did not want to be left behind, you know. I remember those words as if it was yesterday. I see myself small and—'If you don't keep quiet, you're going to be left behind'—Well, those words, I will never forget them—I was very afraid."

7 repetitions: "Do you like to do it all the time?"

11 repetitions: "I hate it when you do it all the time."

12 repetitions: "What are you doing?"

16 repetitions: "It is the truth."

19 repetitions: "Does it go on all the time? I hate to hear that—it upsets me; look at me shaking."

21 repetitions: "It upset me enough. It is the future that I think of—I know now that I can't count on my husband and my mother." (At this point the patient became red, restless, and began to breathe rapidly.)

30 repetitions: "I hate everything; it makes me so resentful—I am so alone, I might as well go and do something silly; I am so different—I want to be like others; I want to hear nice words—my mother and husband never did—but I can't go out for necking—I want to be protected—I never got it."

35 repetitions: "I hate. I hate."

36 repetitions: "Oh stop it. I don't want—"

39 repetitions: "Stop it! Stop it!" (The patient began to threaten with her hands.)

40 repetitions: "Stop it! Don't you want to please me?"

41 repetitions: "Stop it—it makes me weak."

43 repetitions: "Look at me shake—it reminds me of my past, when I used to shake and fight to control myself."

45 repetitions: "It makes me mad. It makes me mad when I think of my past, when I was so lonely. I used to fight with myself about going out to parties. I would say, 'Go out'; part of me would say, 'Go out with him,' another half would say, 'You don't like him.' I feel weak the same way now—weak with the fight. I envy my sister; she goes out all the time. But me, I have to think and then I don't go. I am so lonely."

Driving was stopped at this point, and the patient continued to shake, and for some time afterwards she said that she had the same unpleasant feeling in her abdomen which she ordinarily had when she got upset at home.

The amount of experience needed to make a satisfactory selection of a key statement is that required to identify effectively the patient's major problems. In selecting the key statement for driving or in the creation of a statement in heteropsychic driving, it is essential that the statement should not be long and that it should not contain a multiplicity of topics. In practice we have found that the optimum length is between 5 and 7 seconds, with the tape running at the standard rate of $7\frac{1}{2}$ feet per second. If the statement is longer or if it contains more than one major topic, the patient, who seeks in every possible way to defend himself against the driving, will do so by shifting his attention from one part of the statement to another or from one topic to another. In this way, he is able to prevent what we are seeking to bring about, namely, a continuous activation and expansion of a given area of his experience.

Autopsychic driving can be carried out quite readily in office or in hospital practice. The effects are usually discernible after the statement has been run some 10 times, and if the purpose is ordinary penetration of defenses and exploration, we have usually found our purpose achieved within about 30 minutes of driving.

Autopsychic driving, we have found to have as its primary values (1) the penetration of defenses, (2) the elicitation of hitherto inaccessible material, and (3) the setting up of a dynamic implant. Psychic driving leaves an area of increased reactivity which may persist for weeks or months, and, as will be described later, may be most useful in the continued elicitation of important material.

Heteropsychic driving consists in the development of a cue statement based on the therapist's knowledge of the dynamics of the individual. Such a statement may be based, for instance, upon the patient's life-long feelings of inadequacy or his passivity. We have customarily found that heteropsychic driving is best carried on over extended periods—sometimes, as in the case of hospital patients, for 10 to 12 hours a day, and sometimes during sleep. We have also been exploring the use of follow-up heteropsychic driving, in the case of patients difficult to stabilize on the outside. Its primary uses are the changes of attitudes and the setting up of a dynamic implant. It is not used for the direct penetration of defenses. A related procedure has been reported by Brickner *et al.*(2). These workers put their patients into "clinical coma" by amobarbital sodium given intravenously. For a period up to an hour, prepared scripts were read to the patients while in this "clinical coma." These scripts were designed to approximate important situations in infancy and childhood. Favorable results were reported.

In an attempt to explore the ramifications of this new psychotherapeutic field, a variety of possible applications of psychic driving have been investigated, chiefly, different ways of (1) carrying out the driving technique, and (2) preparing the patient for driving. Among the variations in driving technique which have been explored are: the use of pillow and ceiling microphones; the value of presenting the same theme in a multiplicity of ways, as suggested by those concerned with attitude changing; role playing by those verbalizing the heteropsychic driving circuits, *e.g.*, the playing of a supportive mother role or of a youthful peer role in terms of intonation and in terms of choice of words, the theme remaining determined by the patient's needs. No firm recommendation can be made with regard to this category of variations, save to say that the purely mechanical seem of relatively little importance. Among the various ways of preparing the patient, one of the first used was to disinhibit him so that his defenses might be reduced. Sodium amytal was used in a number of cases; in others, driving was carried out during prolonged sleep. These latter cases represent probably the most extensive periods of driving—some cases receiving 10

or 20 hours a day for 10 or 15 days. Another attempt to reduce the defensiveness of the individual while applying driving was an adaptation of Hebb's psychological isolation (3). Here the individual was isolated not only from incoming stimuli by putting him in a dark room, covering his eyes with goggles, reducing auditory intake, and preventing him from touching his body—thus interfering with his self image, but also attempts were made to cut down on his expressive outflow.

Still another area consisted in attempting to drive the individual while under stimulant drugs, in particular, Desoxyn. There is currently under exploration driving under hypnosis, and the application of driving as a follow-up procedure in patients who have been discharged.

By far the greater part of the work, however, has been done on the use of autopsychic driving without adjuvants, and in discussing the range of responses here, material derived from this source will be referred to, with material from other applications of psychic driving brought in to demonstrate particular points.

THE RANGE OF RESPONSES

The range of responses to psychic driving is wide. The various forms thus far identified are listed below:

Immediately Constructive Response.—This is well illustrated by the following case.

A 50-year-old woman suffered from marked feelings of inadequacy and profound ambivalence toward her husband, much of which was derived from an earlier relationship to her mother—a fact hitherto not adequately recognized by the patient. Her response was total, as illustrated by the feelings in her hands and in her skin (see below). Note also the intensity of the feeling elicited by the driving, as exemplified by her expressions.

The following statement was driven some 15 or 20 times: "That's what I can't understand—that one could strike at a little child." She has reference here to the fact that her mother used to take out all her own frustrations and disappointments and antagonisms on the patient during her early childhood—even going so far, when the patient was 7, as to tell her, "I tried to abort you, too, but you just wouldn't abort."

After some 10 repetitions the patient said, "You know, that makes me feel dizzy and queer just to listen to it. I want to burst into tears—it makes the skin stand out on my arms; I am scared; my hands are wet." Then later, after it had been stopped, subsequent to some 15 repetitions, she said, "You know, I wanted to tell you to stop." In immediate discussion of the playback, she said, "I can see that it was really my mother who damaged me. I also see that not being able to trust my mother not to hurt me has made me mistrustful of everybody. "It scares the hell out of me to think that my mother might be deliberately mean to me. It gives me one of those 'all gone' feelings just to think of it. I think my mother may have felt inadequate and taken it out on me."

Partial Block.—Here the patient is partially blocked by the intensity of the feelings elicited by the driving, as illustrated in the following case.

A young married woman of 28, extremely dependent and resentful toward her rejecting parents, had built up a reassuring stereotype of her father as being on her side as contrasted with her mother. Eventually, after prolonged psychotherapy, she succeeded in bringing back a recollection of her real difficulties with her father, who was actually a morose, sulky man, who, after a row with anyone, even his 5-year-old child, would refuse to make up—sometimes for days on end. She related how, when she was 7, she had been sent up to her room, falsely accused by him of lying, and finding the accusation unbearable, she turned and went downstairs to where he was sitting in the library.

She went on to say (and this was the part that was played back repeatedly to her), "I was crying and pleading with him to believe me. Would he please forgive me—and I apologized, and he said, I had no—and he said I had no right to be believed." After 5 playbacks the patient brought out a great deal of hostility and generalized it to include the therapist. She said, "I am back in the old frame of mind, where I just won't talk because I am so mad—just like in childhood." After 8 repetitions, she said, "I am getting nowhere." After 10, "I'll never put myself in that position again" (referring to her trying to make up with her father). After 13, she said, "That's why I don't like crying now—because of the way my father treated me when I went crying to him."

The following day, in commenting upon the playback session, she said, "I just wanted to get up and get out. Part of the reason was because I didn't want to cry, and part because I was so mad because of the feeling it brought back—I was mad that anyone could make me feel that way. When I left the office I was still feeling mad, and when I got back to the hotel I was just feeling numb."

On her next treatment day the patient brought out a wealth of material concerning her father—describing his sulky behavior, her own feelings of utter desolation over his rejection of her, her later struggles with him when he continually tried to break into her social group in her teens, thus forcing her out of step with her own generation.

Four days after the first period of autopsychic

driving the same material was played back to her and she found that her ability to communicate with the therapist was again reduced during the treatment period. The driving revived her pattern of response to her father in which she had felt the uselessness of talking about anything. Again, on subsequent days, there was a return to a very full opening up of her recollections of her earlier relations with her father.

Rejection and Later Acceptance.—We have found it customary in using heteropsychic driving in sleep cases for patients to reject the driven material for the first days—sometimes for as long as 10 days—and later to incorporate it into their thinking.

Rejection and Escape.—This response is illustrated by the following case.

A girl in her early twenties came to us suffering from a severe character neurosis with marked immaturity, overt hostility toward her husband, underlying incestuous longings for her father, and much sex guilt. The incestuous longings were never accepted by the patient, although she was able, after therapy lasting several months, to identify the father's sexual desires for her. A passage in her psychotherapy was selected in which her own sexual longings for her father came close to the surface, and was set up as a playback circuit. After about 3 to 10 playbacks, she became progressively disturbed, grew very angry, called the therapist a fool, asked him what he meant by playing that stuff to her, and finally leapt off the therapeutic couch and ran out of the Institute to her downtown apartment. She refused to return to therapy and had to be admitted at a later date as an inpatient, quite deeply disturbed. It should be underscored that this procedure is one of considerable potency, and care must be exercised in the selection of the playback circuit, otherwise the progress of the patient, as in this case, may be seriously retarded.

Continued action.—Early in our explorations of this field we became aware of the fact that in a number of instances, and particularly in those cases where prolonged heteropsychic driving was used, a continued action could be expected. In other words, psychic driving established what we have termed a dynamic implant, as illustrated in the case below.

A chronically anxious woman, whom we were able to relieve only partially by any of the measures at our disposal, had, among other difficulties, a fear of entering stores or other crowded places. Using isolation as a means of reducing her defenses, we drove over an 8-day period a reassuring statement concerning her anxiety attacks. On various occasions up to 5 months after leaving hospital, inquiries were made as to whether this experience had left any enduring effects. She stated that now, whenever she was afraid she tended to think of the psychic driving statement, and while this did not by any means completely eliminate her anxiety, it did have a reassuring effect.

The functioning of the dynamic implant is discussed in a later section.

Development of Defenses.—Defenses against psychic driving are not easily erected, and, in our experience, occur primarily in heteropsychic driving of long duration, where, as a number of patients have reported:

After a time my mind wanders away from the voice; I come back to it again, but I sometimes think of other things.

We have tried to prevent this release from the driven material by a variety of measures, such as cutting out all external stimuli during driving, by introducing the driven material through a dormiphone under the pillow, or through earphones either directly inserted into the ear or attached to it, using one of the forms currently developed for stenographers. These, while useful, do not completely eliminate the capacity of the patient to release himself from the driven material. With autopsychic driving of more limited duration—say up to half an hour—it is almost impossible for the patient to release himself, partly because of the greater intensity of the autopsychic material. Attempts made to develop defenses during these briefer periods usually involve the patient's mobilizing his hostilities and directing them against the procedure, and particularly against the therapist. If this mobilization is sufficiently powerful, the interaction with the driven material may be broken up.

The following case illustrates the intensity with which defenses may operate.

With a 40-year-old woman, who in psychotherapy had shown an almost inpenetrable defensiveness and marked somatization of her symptoms, the following autopsychic circuit was used: "My mother and I used to go off—when I look on in—quite a few different places. But I can remember being left at home with no one to play with, because everyone had gone away somewhere." After listening to this played back 4 times, the patient said, "There's no sense to it." After 12 times, she said, "Of all the asinine things." At 25, she said, "It sounds so mixed up; I think I must be crazy." On inquiry as to why she thought this fairly direct statement was mixed up, it was clear that she had succeeded in converting the words, "But I can remember," into the words, "But I can't remember," and had converted the

words, "because everyone had gone away somewhere," into the words, "because no one had gone away somewhere." This remarkable inversion of her statement took place in the course of listening some 25 times to the circuit. It is important to underline the fact that this woman was, to all outward appearances, quite at ease, and was running her household, although she had a degree of anxiety which limited her ability to go shopping or to go out socially, and she did complain of feeling mixed up and confused about things at times.

Still another form of defense is illustrated below.

In the case of a 39-year-old woman with marked feelings of inadequacy and severe symptomatic alcoholism, the patient's defenses proved to be almost impenetrable by ordinary psychotherapeutic means, and hence 2 heteropsychic themes were developed: the first centering around the topic of her increasing improvement and the fact that she no longer had to turn to drinking for reassurance; the second, being specifically directed towards emphasizing her growing self-confidence and her increasing ability to make friends and to maintain her poise.

She had a minimum of 25 hours of psychic driving—part of it with her thinking partially disorganized under LSD-25; during the latter part, however, she had no medication.

Immediately after leaving hospital, she went on a vacation. When seen seven weeks later, she was able to recall the theme dealing directly with her confidence and poise and stated that it had been of great assistance to her, that she did indeed feel much more confident. Her husband corroborated the fact of her definitely increased confidence. But it was of special interest to note that the comments concerning the theme relating to her giving up drinking were no longer necessary. She stated that she could not recall this theme correctly; she felt it was a confusing, disturbing one. As far as she could understand it, it meant that drinking made it easier for her to make friends, and hence she should continue drinking—whereas she herself was quite determined not to drink and, indeed, was on Antabuse at the time and was not drinking. It seemed clear, however, that there was an underlying urge to drink and that this had resulted in the actual inversion of one of the heteropsychic driving themes. Note further that by this inversion of this heteropsychic theme, she has acquired a social sanction for repudiating it. For, since her immediate society is much against drinking, she can reasonably say, once she has brought about the inversion, that this is a theme to which she should pay no attention, and indeed would be well to forget.

Autopsychic Material Produces a Like Response.—This is a most important principle upon which much of the effect of psychic driving depends. In a word, the kind of autopsychic material which is used on the driving circuit tends to produce similar reactions from the patient. If, for instance, the material is depressive in nature, and the patient's discussions are tearful, then his responses will likewise be tearful. If, in contrast, the patient's material is loaded with hostility, then his responses are likely to be similarly loaded with hostilities. Moreover, the content of the communication tends to remain within the general topic of the driven material. It is exceedingly difficult for the patient to escape from this, and since, as will be outlined in the next section, driving produces progressive penetration, the result is a continually expanding and opening up of a given topic or community of action tendencies.

WORKING PREMISES

In order to integrate the various observations we have made in this field and to develop our attack upon the problem, 5 working hypotheses have been set up:

Shielding.—The individual is shielded in greater or lesser degree from the full implications of his own verbal communications. For many years we have seen and reported, as others have, that the simple playback has an impact upon the patient. Innumerable patients report that listening to their recorded voices is a disturbing experience. Some of them absolutely refuse to listen; others say, "This is not me"; a few patients like their recorded voices, but most do not. The reason for the difference in the way one ordinarily hears his voice, and the way he hears it played back from a recorder is that one's own voice is heard through tissue conduction through the neck and the bones of the head, as well as in terms of air conduction as it proceeds from his mouth. We are aware that air conduction plays a part, since, if one's ears are plugged, one's voice will not sound the same as when the ears are open; and similarly one can test the fact that hearing his voice coming back from a recorder is different from hearing it as he ordinarily speaks. In other words, one's own voice heard ordinarily is a synthesis of air and tissue conduction. But there are really two phenomena here: the patient finds his voice different, and, secondly, many patients do not

like their voices. The first phenomenon we have attempted to account for in terms of a difference in conduction, as described above. Addressing ourselves to the second phenomenon, we have evolved the working hypothesis that all of us develop defenses against hearing what we do not wish to hear in our voices, whether intonations, methods of using words, articulations, or even content which we do not wish to understand. The defense is organized against the synthesis of tissue and air conduction, and as soon as this is broken up by eliminating, in this instance, tissue conduction, the patient is presented with an entirely new situation against which defenses have not been organized. It is an interesting fact that while we have been long accustomed to the idea that repressed material is ordinarily charged material, and we defend ourselves against its entering our awareness, there is evidence that in our communications with others we can transmit this highly charged material, carefully shielding or defending ourselves against it. It is as though heavily gauntleted and otherwise protected, one took dangerously active material from a radioactive pile and carried it carefully to some other location.

This breakdown in the shielding, occasioned by the elimination of tissue conduction, is one of the basic reasons why driving is effective in penetrating defenses and in enlarging the area of the patient's communication, both to himself and to others.

Talking and Listening.—A second reason why the patient is able to understand more of his communication when it is driven, than when he hears it the first time, depends upon differences between talking and listening. When we talk, we are thinking of what we are going to say; we are developing a series of concepts whereby it may be transmitted; we are choosing words; we are continually monitoring our tone; we are calculating the receptivity of the listener; we are monitoring the listener's response; and lastly, we are seeking to maintain our goal idea—namely, to keep talking toward our final objective. The amount of attention which we can bestow upon listening to our own talking as it goes forward is comparatively limited. In contrast, when we listen to what we have said being played back, we are free from the burden of carrying on all of these multifarious activities, and hence are much more able to attend to, *i.e.*, to understand, what we have said.

Our activities while listening, although apparently much less complex than while talking, are at the same time more involved than we, with our addiction to mechanical models, have been inclined to think—and this is particularly true of the therapist. Most of us are apt to think about two people talking together in much the same terms as mechanical broadcasting and mechanical reception. In reality, the situation is far from similar. Something of an analogy may be found in the idea of taking an active fox terrier out for a walk. The speaker is the walker, and moves with fair direction along a path in the woods and across the hillside to his ultimate objective. In contrast, the terrier, which we can take as the listener, while in general accompanying him on his walk, makes an endless number of side excursions—following up trails and lines of inquiry of his own, returning from time to time, but certainly not following the walker in all his steps. So at the end of the first time of listening, while a tremendous amount of reaction may have gone in the listener's mind, it is by no means a complete reaction to all that the talker has said—much of it consisting of side excursions into the listener's own reflections and past experiences. Hence, as the driving circuit is played back again and again, both the patient and the therapist not only hear more and more, but are able to react more and more extensively to what has been said. In this working concept, as will be noted, we have a theory to account for the fact that not only the patient, but also the listener is able to understand more and more, up to a certain point, the longer he hears the driven material.

Driving.—Driven material is seen as a verbalization of a part of a community of action tendencies. We have found it useful to abandon entirely the older concept of experience as being set up in long lines of associations, one leading to the next, much as on the wire of the recorder, but rather to see experiences as being set up in a great number of communities of action tendencies. For instance, there is a community of action tendencies with reference to the relationship to

the mother, with reference to self-assertion, with reference to sexual experiences. We see the verbalizations as constituting a cue which, on being re-heard, will set this community of action tendencies into operation, and in general will not set into operation any others. As is well known, in ordinary therapy the patient tends to move away quite rapidly from a painful area. By a series of often quite subtle moves he talks himself out of a particular topic. In the driving situation, however, he is unable to do so—as the endless repetition of the cue verbalization confines him to a continuous reactivation of the particular community of concepts. More and more intensified tendencies are put into activity until one has a situation comparable to the fire blizzard of World War II—when the hotter the conflagration grew under the rain of incendiary bombs, the more air poured in, and hence the more intense grew the conflagration.

Incidental attention should be directed toward the usefulness of this idea of communities of action tendencies—useful insofar as it gets us away from the necessity of postulating the older and inadequate concept of a deterministic causality.

The Dynamic Implant.—Effects of psychic driving do not occur at the time only; there are continuing effects. We can, through psychic driving, particularly through long-term heteropsychic driving, set up a long-lasting action. By striking continuously at a given community of action tendencies, more of them are brought into activity. This forced responsiveness produces intensification of the individual's behavior, *i.e.,* he becomes tense or anxious and this provides the persistent driving force of the implant. The efforts of the individual to free himself of this intensification cause continuous reactivation of the area concerned, *i.e.,* he tends to return continually to and ruminate over it, and in so doing, further reorganization of the area is brought about. Note that part of the intensification of this implant may also be derived from release of the original emotional investment of the community of action tendencies involved in the driving.

In advancing these working premises as to how psychic driving operates we feel that we have defined only a few of the many mechanisms which undoubtedly go into operation during the course of psychic driving. Investigations will undoubtedly define still other important activities. Among these may well be the actual "wearing down" of defenses in the sense that defenses are maintained only by means of continual effort and if they are continuously overloaded their breakdown is to be expected. Analogous to this is the breakdown of the individual under continuous interrogation. Still another hypothesis that should be explored is the extent to which psychic driving with its continual presentation of the loaded cue statements brings about desensitization.

Conclusions

1. Psychic driving is a potent procedure—it invariably produces responses in the patient, and often intense responses.

2. The responses tend ultimately to be therapeutic.

3. To account for the effects of psychic driving the following working hypotheses have been set up:

a. *Penetration of shielding.*—Defenses of the individual against the full implications of his verbal communications are circumvented by using air conduction only, rather than the synthesis of air and tissue conduction to deal with which his defenses were organized.

b. *Driving.*—Constant repetition of the verbal cue locks the patient into continual response in terms of the community of action tendencies of which the cue is part.

c. *Talking and Listening.*—Working ideas concerning these and their bearing on the penetrating effect of driving have been set forth.

d. *Dynamic Implant.*—A given period of psychic driving may continue to produce additional effects after the period of actual driving has been terminated. To account for this, a premise has been advanced that a period of psychic driving may set up within the individual an area of intensified responsiveness, which calls him back repeatedly into activation of the area concerned.

4. Psychic driving lends itself to a great many modifications with respect to its application. These have been listed, and include autopsychic and heteropsychic driving, varia-

tions in the mechanical procedures and variations in the preparation of the patient for psychic driving. It is still too early to determine the various particular values of these; the material presented has been derived primarily from short-term autopsychic driving without adjuvants.

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