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THE EFFECT OF AUDITORY OCCLUSION ON TAT
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THE EFFECT OF AUDITORY OCCLUSION ON TAT
RESPONSES OF INSTITUTIONALIZED
DELINQUENT, ADOLESCENT BOYS

by

Lorenz Villeponteaux, Jr.

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Approved by


Dissertation Adviser

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

Dissertation
Adviser

J. Allen Wilson

Oral Examination
Committee Members

Meredith E. Therman
Richard H. Kiser
John C. Edwards
Mary Elizabeth Keister

May 11, 1972
Date of Examination

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The purpose of this experiment was to examine the effect of not hearing one's voice on certain aspects of verbalization among delinquent boys. White noise masking (WNM) was used to occlude subjects' own voices from themselves.

Forty (40) subjects from the John G. Richards School for Boys, Columbia, South Carolina, were selected and placed at random into four sample groups of ten (10) boys each. Two of these groups were experimental and two control. One experimental group and one control group were pretested and the others were not.

The task of the subjects was to respond verbally to selected Thematic Apperception Test cards with the subjects in the experimental groups responding under WNM conditions.

The effect of the independent variable, WNM, on several dependent variables was measured. Data obtained were of two kinds, objective and subjective. The objective measures were obtained on latency time, word count, and rate of speech per minute. The subjective data were in the form of rating of the quality of the responses by three independent judges.

All data were analyzed by using analyses of variance. The findings were consistently negative

regarding the effect of WNM, and contradict the findings of similar studies done with normal subjects. However, the findings do tend to support the theoretical literature regarding verbalization among delinquent boys.

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CHAPTER I

INTRODUCTION

The purpose of this study was to investigate certain aspects of verbalization among delinquent boys. It is important at the outset to put into some kind of perspective the theoretical underpinnings of the proposed study in relation to some of the major theories of delinquency causation. However, it should be noted that no attempt was made to develop a global theory of causation. Instead, the effort was to systematically examine one frequently described characteristic of the delinquent adolescent boy, i.e., the apparent inability or unwillingness to verbally communicate his feelings.

One of the oldest, and lately revitalized, theories of delinquency causation is genetic theory. The contention is that deviant behavior is somehow transmitted from parent to child by means of physiological or genetic structures. The old notion of "bad blood" was given popular support by retrospective studies of such families as the Jukes and the Kallikaks (Tappan, 1960). The results and conclusions of such studies, however, are certainly questionable on methodological grounds as well as on the basis of both internal and external validity (Montague, 1968).

Recently a more scientific approach has been taken to the study of inherited behavioral traits. Certain chromosomal aberrations caused by nondisjunction in the meiotic process have been identified, e.g., Klinefelter's Syndrome which has a chromosomal constellation of XXY rather than the normal XY for males and XX for females (Kolb, 1968). The XYY configuration is the one found to have been associated with a small but statistically significant number of hostile and aggressive personalities (Montague, 1968). Richard Speck, the murderer of the Chicago nurses, is probably the most notable example in this country of an individual with the XYY constellation.

Learning theory provides another means of conceptualizing delinquent behavior. At the risk of oversimplifying, learning theory holds that: (1) a drive or a need is experienced, leading to (2) a cue or a stimulus which provokes (3) an action or response (perhaps on a trial and error basis), and (4) if the drive is reduced or the response somehow reinforced, then (5) one has learned (Dollard and Miller, 1950). According to Gelfand and Hartmann (1968) delinquents are viewed as individuals who exhibit certain, "undesirable response patterns . . . in combination with a deficiency in pro-social responses (p. 208)."

In the application of learning theory to delinquent behavior one finds an important adjunct to the basic theory regarding treatment. That is, that anything which can be learned can be unlearned. Some success has been reported in modifying or extinguishing socially unacceptable behavior patterns (Burchard and Tyler, 1965; Thorne, Tharp and Wetzel, 1967; and Schwitzgebel, 1967, 1971).

Intimately connected with learning theory are the sociocultural theories of delinquency. James Short (Hoffman and Hoffman, 1966) comments:

It appears further, that as youngsters become more involved in delinquency they become more involved with other delinquents. On the basis of ecological data and extensive case studies, sociologists have suggested that a great deal of delinquency can be understood as resulting from the transmission to the child of neighborhood traditions of group delinquency, sometimes including adult crimes and of specific influences of peer groups (p. 440).

Cultural lag (Ogburn, 1922), social disorganization (Shaw and McKay, 1942; McGee, 1962; Koenig, 1962), anomie (Merton, 1949), and cultural conflict (Sellin, 1938; Reckless, 1961) are some of the names given to the variety

of sociocultural explanations of delinquent behavior. Generally, these theories stress the development of a delinquent subculture which in turn affects the individual. Sutherland (1947), one of the best known and most productive of the criminologists in this country, suggests that criminal behavior is learned from association with criminals. A criminal learns to become a criminal through his culture by a process of differential association.

The psychoanalytical theories of delinquency are, of course, based on Freudian concepts of personality structure. The storehouse of instinctual drives and impulses, the id, may be too strong to be controlled by the ego (Freud, 1933; Blum, 1953). Other aspects of psychoanalytic theory as related to delinquent behavior can be found in Reiner and Kaufman (1952) who see at the base of acting out behavior of the character disordered person a core depression which must be uncovered and worked through; or in Adelaide Johnson (1949) who developed the concept of "superego lacunae" or gaps in the superego; or more recently in the ego psychology literature (Parad and Miller, 1963; Polansky, 1971).

It is quite logical, from a theoretical viewpoint, that the ego should become the focus of attention and concern in psychoanalytic thought; for it is the ego, it is

postulated, which stands astride the individual's outer, conscious world and his inner, unconscious world.

The classic work of Redl and Wineman (1952) provides a wealth of clinical evidence to support the ego psychology theory of delinquency. Out of their residential treatment center, Pioneer House, came the technique of "life space interviewing" which suggests that the behavioral outbreaks of the boys in the facility represent ego disturbances (Wineman, 1959). Wineman (1959) goes on to say:

It seems to me that life space data suggest that in ego processes are wrapped up the vital connections between the person and his "inner" and "outer" worlds. The ego seems to be a continuum with one end buried (but alive and "kicking") in the slumbering roots of the person and the other proliferated into a sensitive network involved in sleepless radar-like contact with the world around it (p. 17).

In an exceptionally lucid presentation of the connection between ego deficiency and delinquency Grossbard (1962) comes directly to the point.

It is the ego of the delinquent that is malformed. It lacks the basic equipment-- mechanisms of control, capacity for reality

testing, ability to bind impulses through language, sublimation, fantasy and so forth--which is needed to deal with inner and outer stress (p. 174).

Another outgrowth of psychoanalytic theory, though much more removed than ego psychology, is Sullivan's interpersonal theory which is basically a social psychological theory (Hall and Lindzey, 1970). Although men and women like Adler, Horney, and Fromm placed great emphasis on the social nature of man (Hall and Lindzey, 1970), Sullivan has made a very significant impact. It was essentially from his concepts that Warren (1966) developed her system of nosology for delinquents called the interpersonal maturity level (I-level) classification. The system is based on a continuum through seven stages of interpersonal maturity in psychological development, least mature through most mature. A full treatment of the underlying theory can be found in Sullivan, Grant and Grant (1957).

The major point of this section is not to debate the theoretical issues related to delinquency. Rather it is to establish some commonality concerning the proposed study. Although coming by various routes, nearly all of the theories of delinquency do cross at a point which is central to the underlying theory of this study. The

intersection is the symptom noted earlier, the inability or unwillingness of delinquents to talk about feelings. Even behavioral therapists in some instances arrive at the same point. For example, Schwitzgebel and Kolb (1964) offered positive reinforcers to a group of delinquents for, among other things, discussing and analyzing their feelings.

The idea behind the proposed study evolved from several sources, both experiential and theoretical. An abundance of opportunities to observe day to day behavior of delinquent, adolescent boys was provided in a day care setting which was offered to subjects as an alternative to commitment to the state training school (Villeponteaux, 1970). In this agency, Horizon House, Inc., the staff quickly noted an apparent inability on the part of most of the boys to effectively utilize educational opportunities. This seemed to be coupled with their repeated involvement in crises of one kind or another. The boys in the agency seemed to be unable to deal with any strong stimuli in an abstract way; they seemed to be cognitively defeated.* Subsequent to the presentation of

*Cognitive defeat is a term which this writer and Dr. Paul Deutschberger evolved in 1966 from lengthy discussions about the demeanor and attitudes of the boys in the Horizon House program.

such stimuli, e.g., individualized reading instruction, the boys often became involved in acting out behaviors.

A more global concept which embraces much of the above is found in the work of Polansky and his associates on verbal accessibility (Ganter, Yeakel, and Polansky, 1965; Jaffee and Polansky, 1962; Polansky, 1965). According to Polansky (1971) verbal accessibility is, "the degree of readiness of the client (or patient) to communicate in speech, and to participate in talking about, his determinant attitudes (p. 187)." Essential to this definition is the understanding that the mere speaking of large numbers of words does not constitute verbal accessibility. Instead, the measurement of one's verbal accessibility must be taken in terms of his ability to talk about important feelings and attitudes.

In relating the concept of verbal accessibility to delinquency, Jaffee (1960) found that verbal accessibility was significantly lower in delinquency prone subjects than in non-delinquency prone subjects. Clearly this all harkens back and lends support to the theoretical literature of ego psychology with regards to impulse control. Redl and Wineman (1952) suggested that in Pioneer House a major therapeutic goal was to help the impulse ridden child to develop inner controls, a major harbinger of which is the increase in the verbalization of impulses.

Turned around, healthy ego development is thought to be the sine qua non of good impulse control since one function of the ego is to bind impulses by converting them to language and symbols (Grossbard, 1962).

From a theoretical viewpoint the connection is clear between impulsivity and verbal inaccessibility among delinquents. However, empirical evidence from systematic investigation is not available.

The role of hearing one's own voice has been investigated by Holzman and Rousey (1970, 1971) and others (Klein, 1965; Klein and Wolitzky, 1970). This work was done with normal adult populations, for the most part, and the results of the research and several replications (Holzman and Rousey, 1970, 1971) have indicated that when one is unable to hear his own voice, a marked disinhibition occurs. This disinhibition takes the form of relating more impulsive themes and demonstrating a less inhibited affect.

Holzman and Rousey (1970, 1971) used white noise (WN) played through a set of earphones at 98 decibels to effectively mask or block out both air and bone conduction of the subject's voice. Subjects were then asked to respond to selected TAT cards under WN conditions, and their responses were recorded.

It should be noted that white noise has been found to have an effect on stuttering. Webster and Dorman (1970)

reported that under several experimental conditions of white noise they found significantly less stuttering than in a control group. Their findings were significant beyond the .001 level.

There is a question, then, which arises from the work done by Holzman and his associates. Do delinquents respond to white noise in the same way that normal subjects do? Are their responses more impulsive than defensive and inhibitory? Are their responses greater in length? Are initial responses begun sooner?

The major hypothesis of this study, therefore, is: White noise masking will affect the responses of institutionalized, delinquent, adolescent boys to selected TAT cards. Specific hypotheses which are components of this general one are as follows:

1. Responses to selected TAT cards by institutionalized, delinquent adolescent boys will be longer under white noise masking (WNM) conditions than under no white noise masking (N) conditions.
2. Latency of responses to selected TAT cards by institutionalized, delinquent, adolescent boys will be shorter under WNM conditions than under N conditions.
3. Responses to selected TAT cards by institutionalized, delinquent, adolescent boys will be more impulsive than defensive under WNM conditions than under N conditions.

The Thematic Apperception Test (TAT) was developed in the 1930's by Henry Murray and his associates (particularly Christiana Morgan) at the Harvard Psychological Clinic (Anastasi, 1968). The test reflects Murray's theory of personality in that it is based on the premise that, "the need is father to the fantasy (Kolb, 1968, p. 156)." It is generally viewed as an instrument for, "fathoming the content of a person's fantasy (Symonds, 1949, p. 12)." Comparing the TAT with the Rorschach, Symonds (1949) admits that the latter does yield more about personality structure, but that the TAT yields more about content of personality. Murray (1950) suggests that if the TAT has any real value it is in its ability to reveal unconscious material.

Rosenwald (1968) cites three major reasons that the TAT is about as widely used as is the Rorschach: (1) the responses of the subject, at least on the surface, are not, "mysterious in appearance (p. 172);" (2) it appeals to the researcher because it originated in an academic, humanistic setting; and (3) it yields a more, "comprehensive . . . view of personality (p. 172)" than most other projective techniques. On the other hand, Cattell (1951) says that the TAT is not even a projective test, but rather a test of fantasy.

Although the TAT has been highly praised by some, others have pointed to a serious weakness which often comes from expecting too much from it. As early as 1950 Cox and Sargent reported that although the sample size was small, highly qualified judges failed to distinguish the responses of emotionally disturbed children from those of emotionally stable children.

Eron (1949) conducted a large-sample study which incorporated veterans, college students, non-hospitalized psychoneurotics, hospitalized psychoneurotics, hospitalized schizophrenics, and miscellaneous neuropsychiatric patients. He concluded that fantasy productions of the various patient groups did not differ significantly from those of normal subjects.

In the TAT manual Murray (1943) contends that the stories told by the subject are relevant to the personality of the subject because people who are presented with ambiguous situations tend to interpret them in a way that reflects their own past experiences and current needs. He suggests that the test be presented to the subject as a test of imagination so that the subject will be motivated to perform well and will tend to forget, as it were, to defend himself. Thus he will say things about the invented or imagined characters of the stories which are actually applicable to the subject himself.

Rapaport (1968) sees the rationale as a much more complex one than this. In fact, he says that, "the realm of ideational content comprising imagination and fantasy which is encompassed by the TAT involves almost all the problems modern dynamic psychology and psychopathology deal with (p. 477)." He goes on to say that it is impossible at this point in time to tell whether or not the stories told by the subject all represent true fantasies. The question arises as to how much influence television, a recent movie, or a novel have on the productions of the subjects.

Considerable time has been spent discussing the TAT because selected cards from this test were used in this study. However, the cards were not used to extract data regarding personality diagnosis. They were used in this study simply as stimuli. This leads, then, to the question of how and why the specific cards were selected for this study.

In the literature concerning the rationale of the TAT one often finds discussion of the ambiguity factor (Kagan, 1959; Murstein, 1960, 1964). Kenny and Bijou (1953) have done extensive work comparing productivity of responses with ambiguity of the cards. They report (1953) that as ambiguity of the stimuli increases there is an initial increase in productivity, but this is then followed

by a decrease. Their conclusions seem to be consistent with the law of diminishing returns. In their 1953 study (Kenny and Bijou, 1953) they identified three groups of TAT cards as being low, intermediate and high in ambiguity. Four cards in the intermediate group were chosen for this study. These cards were: 4; 7BM; 12M; and 13MF.

For the purpose of this study delinquency was defined on the basis of an adjudication of delinquency by a court in South Carolina which has jurisdiction. Since it is rare that a boy is committed to the training school after only one offense, most of the subjects for this study had several offenses on their records. In short, their presence in the institution served to define delinquency.

By the same token, institutionalized refers to the boys who are legally confined in the John G. Richards School for Boys in Columbia, South Carolina.

For the purposes of this study adolescence means fifteen (15) to seventeen (17) years of age. This is the age group which is served by the John G. Richards School. Boys younger than fifteen (15) are sent to the institution in Florence, South Carolina.

White noise masking (WNM) refers to manufactured noise which covers at random all the frequencies within the human hearing range. In this instance the white noise

generator being used provided a random output from less than 10 cycles per second to in excess of 20,000 cycles per second. When played at 100 decibels this masked bone conduction of sound as well as most air conduction of sound, so that the effect was that a subject listening through earphones became experimentally deaf for all intents and purposes. This condition was considered to be synonymous with auditory occlusion, as used in the major hypothesis of this study.

Latency of response refers to the period of time which elapsed between the presentation of the stimulus and the occurrence of a response (McGeoch and Irion, 1952).

The term, shorter, in hypothesis number two (2) means actual word count on responses. Contractions were counted as two words.

Judgments concerning impulsivity versus defensiveness were made according to Holzman's (1966) scoring manual. The general rule concerning the judgments was that, "a story is defensive if an urge or impulse of the hero is blocked, inhibited, undone or denied by himself or by someone else. A story is expressive of impulse-discharge if such defenses are unsuccessful or absent (Holzman, 1966)."

CHAPTER II

METHOD

Subjects. The subjects for this research came from the John G. Richards School for Boys, a residential facility of the South Carolina Department of Juvenile Corrections. This institution has a population of approximately 250 boys who are between fifteen (15) and seventeen (17) years of age. All of the boys have been legally committed to the institution after having been adjudicated delinquent.

Intelligence was controlled on the basis of testing done in the Receiving and Evaluation Center for the South Carolina Department of Juvenile Corrections. The evaluation is completed prior to a boy being admitted to the institution to which he is assigned. Boys who were functioning on a level less than very mild retardation, below 80, were eliminated from the study.

Socioeconomic level was controlled by the adjudication process itself. Generally, boys from middle and upper class levels who get into trouble with the law are not committed to the state correctional facilities. Rather, they receive private treatment on a local level. Rarely do they reach the Department of Corrections.

In this study, which may be viewed as a beginning effort, race was also controlled. Negro boys were eliminated because of the cultural factors which influence language development and utilization (McCandless, 1967). In addition, the staff of the John G. Richards School for Boys indicated that it was unlikely that they could provide a sample of sufficient size that would meet the I.Q. requirements.

Apparatus. A white noise generator (24-21 B) manufactured by the Marietta Apparatus Company was used to produce the white noise at 100 decibels. The white noise was played through earphones (TDH39-10Z) manufactured by the Grayson-Stadler Company, Inc.

The generator has a lever control which allowed the experimenter to reduce to nearly zero the decibel level, and at the same time the lever cut on a microphone through which instructions could be given to the subject. The microphone was an Astatic 331, manufactured by the Astatic Corporation.

Responses of the subjects were recorded by means of a Sony (TC-100) Cassette-Corder produced by the Sony Corporation. Ampex 361-C120 Recording Cassettes were used.

Design. The design of the study followed what Campbell and Stanley (1963) call the Solomon Four-Group

design. Forty subjects were drawn from the Caucasian population of the John G. Richards School for Boys, Columbia, South Carolina. The subjects were drawn on a random basis from those boys who fit the criteria of I.Q. From this sample four groups of ten (10) boys each were formed, again on a random basis.

Subjects in Group A were pretested with selected TAT cards, and were then subjected to white noise at the specified level during the posttest period in which additional TAT cards were used.

Subjects in Group B were pretested just as Group A. However, the independent variable, WNM, was not used during the posttest phase. All other conditions remained the same.

Subjects in Group C were not pretested at all, but were subjected to WNM in the posttest period.

Subjects in Group D were not pretested, nor were they subjected to WNM during the posttest period.

The purpose of adding Groups C and D to the basic experimental design was to provide control for the effects of the pretest (Campbell and Stanley, 1963; Kerlinger, 1964).

Procedure. An examining room in one of the cottages of the John G. Richards School for Boys was provided for

the experiment. The equipment was visible on a desk next to which was placed a comfortable chair in which the subject sat.

The order of subjects to be examined was randomly determined, and each subject was brought to the examining room at the appropriate time.

The experimenter spent a brief period of time with each subject in order to explain to him what each piece of equipment was and to talk with him in an effort to establish some rapport. Each subject was assured of the safety of the equipment and the experimental procedure.

Each subject who later experienced the WNM had the sound described to him as a noise which is similar to that which one hears when a television set is turned on without the station broadcasting. The subject was then asked to try on the earphones to see how the noise actually sounded.

Each subject was assured that the procedure would not in any way be related to his stay at the school, i.e., it would have absolutely no effect on his length of stay, weekend passes, etc. The purpose of the procedure was described as an experiment with noise in which the subjects would remain anonymous. Some detail was given regarding the numbering system that was being used in lieu of names, and assurance was given that no subject's name would

appear on any of the data. Furthermore, each subject was told that no report on him or any other individual would be given to anyone at the school. In addition, each subject was assured that the procedure would not harm him, and that the experimenter would do nothing without warning him ahead of time.

Standard instructions regarding the TAT were used to describe the task of the experiment. Specifically, it was to be an imagination test (Murray, 1950) with no right or wrong answers to it. The subject was asked to make up a story about each picture, telling what was happening in the picture, what led up to it, and what the outcome or end would be (Murray, 1943, 1950; Rapaport, Gill, and Schafer, 1968). During the administration of the test only standard instructions were used. The only prompting or exploration on the part of the experimenter was related to the outcome of the story. This took the form of the question, "How will the story end?"

The particular cards to be used for each subject as well as the order in which the subjects were to be seen were both predetermined by random selection (Arkin and Colton, 1962). The procedure varied, of course, depending on the group to which a particular subject had been assigned. All subjects in all four groups wore the earphones throughout the procedure.

The procedure for Group A subjects was as follows. Following the preparation period the pretest phase began. There were two steps in an habituation process for the pretest phase. First, the subject was asked to read aloud a short declamatory section about the atmosphere of the moon as compared with that of the earth. This was typed on a five by eight inch card. The second step consisted on reiteration of the TAT instructions and then presentation of one of the low ambiguity cards, card 1 or card 9BM. After this, if necessary, instructions were repeated and two of the intermediate ambiguity cards were presented one after the other.

The posttest phase immediately followed. The subject was asked to listen to the white noise briefly, and was exposed to it for a few seconds. The noise was then cut off and the experimenter asked the subject if he felt that he could tolerate the sound without difficulty. All subjects who were exposed to the noise agreed that it was not too loud for them, but that it did sound strange. The experimenter then explained that the subject would probably not be able to hear his own voice while the noise was on, but that he should go on and respond to the pictures.

Habituation to the new condition (white noise) was then accomplished by having each subject read aloud the

same card which was used in the pretest. TAT instructions were then repeated and the second of the two low ambiguity cards (1 or 9BM) was presented. Half of all subjects in each of the four groups responded to card 1 and half to card 9BM in each phase of the experiment.

Following this, the second pair of the intermediate ambiguity cards were presented. After the responses were elicited, each subject was thanked for his help and permitted to hear a segment of the recording if he wished. All but one subject of the forty wanted to hear the tape.

The procedure for group B subjects was exactly the same as for Group A subjects except that no white noise was used. Each subject responded to the same number of cards (one low and two intermediate ambiguity cards) in both the pretest and posttest phases. The reading card was also used with these subjects for habituation.

For Group C subjects no pretest phase was used, and the posttest phase was preceded by the preliminary preparations described for Group A subjects. The procedure was exactly the same for the posttest phase of Group A subjects.

For Group D subjects no pretest phase was used, and the posttest phase included the preliminary instructions as before. The procedure then followed exactly that for the posttest phase of Group B subjects.

CHAPTER III

RESULTS

Objective Data. The objective data from this experiment were essentially of two kinds: (1) times in seconds of latency and response periods; and (2) counts of the actual number of words spoken in each response. By combining these two, data were also obtained for rate of speech, i.e., words spoken per minute. The subjective data were obtained from ratings by three judges of the individual responses to each TAT card.

It was hypothesized that latency time would be shorter under WNM conditions, i.e., that the subjects' initial responses would come sooner after presentation of the stimulus. Although the means appeared to show a difference (see Table 1), when analyzed, the data did not support the hypothesis.

Analysis of variance was performed on the posttest scores of all four groups. As Table 2 shows, no significant difference was found between the effects of pretesting, WNM, or the interaction of the two. Following Campbell and Stanley's (1963) recommendation, analysis of covariance was performed with the effects of pretest used as the covariate. The result was not significant. The Hartley F_{\max} (Winer, 1962) test of homogeneity of

TABLE 1

Mean Latency Times in Seconds for
Experimental and Control Groups

Posttest Scores Only

| Experimental Groups | | Control Groups | |
|---------------------|---------|----------------|---------|
| Group A | Group C | Group B | Group D |
| 7.8 | 3.7 | 10.7 | 9.5 |

TABLE 2

Analysis of Variance of Latency Times

| Source of Variation | Degrees of Freedom | Mean Squares | F |
|---------------------|--------------------|--------------|------|
| Pretesting | 1 | 211.60 | N.S. |
| WNM | 1 | 688.90 | N.S. |
| Pretest x WNM | 1 | 108.90 | N.S. |
| Within | 36 | 275.07 | |
| Total | 39 | | |

variance, using the variances obtained in the analysis of variance, led to rejecting the null hypothesis that homogeneity exists.

Two other analyses of variance were performed. First, one extreme score, the highest, was eliminated from each of the four groups. Computation of the analysis of variance yielded a significant interaction effect between pretesting and WNM ($p < .05$). However, it should be noted that with a sample size of nine (9) per group this could not be considered weighty evidence of a relationship (see Table 3).

Finally, the latency scores were transformed to square roots (Winer, 1962) to attempt to attain homogeneity of error variance. The analysis of variance was computed with the transformed scores. The results were not significant although the effect of WNM approached the .10 level of confidence.

Finally, a t-test of differences between means of the pretested experimental and control groups was performed. The result indicated no difference.

The data on the length of the responses to each TAT card by word count were treated in the same way, and no significant findings were obtained on this set of scores, as can be seen in Table 4.

TABLE 3

Analysis of Variance of Latency Times
Extreme Score Eliminated from Each Group

| Source of Variation | Degrees of Freedom | Mean Squares | F |
|---------------------|--------------------|--------------|-------|
| Pretesting | 1 | 42.25 | N.S. |
| WNM | 1 | 210.25 | N.S. |
| Pretest x WNM | 1 | 319.19 | 5.10* |
| Within | 32 | 62.59 | |
| Total | 35 | | |

*p < .05

TABLE 4

Analysis of Variance of Word Count of Responses

| Source of Variation | Degrees of Freedom | Mean Squares | F |
|---------------------|--------------------|--------------|------|
| Pretest | 1 | 240.0 | N.S. |
| WNM | 1 | 1322.50 | N.S. |
| Pretest x WNM | 1 | 25.60 | N.S. |
| Within | 36 | 2962.84 | |
| Total | 39 | | |

The length of each response in seconds was then calculated. This score was converted to minutes or fraction of minutes. By dividing this figure into the number of words spoken in each response, a rate per minute figure was obtained for each response. Analysis of variance using the data transformed to square roots indicated no significant differences in the effect of pretesting. WNM, or interaction between the two (see Table 5).

The hypothesis that responses would be longer under WNM conditions, then, was rejected on the basis of both word count of responses and rate per minute of responses.

Subjective Data. The data from the three judges, two clinical psychologists, and a child psychiatrist was originally in the form of nominal data. A rating of "I" was assigned to a response which was impulsive in nature and a rating of "D" was assigned to a response which was defensive in nature. In addition each judge had some difficulty rating some of the responses, so these were left blank. Judge 1 omitted 1 response, Judge 2 omitted 8, and Judge 3 omitted 15.

The ratings were then converted to an interval scale by assigning 1 point to a defensive rating, 2 points to no rating, and 3 points to an impulsive rating. The assumption underlying this procedure was that when a judge

TABLE 5

Analysis of Variance of Rate of Speech Per Minute
Scores Transformed to Square Roots

| Source of Variation | Degrees of Freedom | Mean Squares | F |
|---------------------|--------------------|--------------|------|
| Pretest | 1 | 1.98 | N.S. |
| WNM | 1 | .01 | N.S. |
| Pretest x WNM | 1 | 2.00 | N.S. |
| Within | 36 | 3.56 | |
| Total | 39 | | |

was unable to rate a response it lay between defensiveness and impulsiveness.

Interjudge correlation (R) was obtained by means of a repeated measures analysis of variance (Winer, 1962) of judges and responses (3 x 120). The average inter-correlation (R) among the three judges was .61 which was found to be significant ($p < .001$).

An analysis of variance of the converted I-D ratings was then performed. Table 6 indicates that no significant differences were found in the effect of pretesting, WNM, or interaction between the two.

TABLE 6

Analysis of Variance of Converted I-D Ratings

| Source of Variation | Degrees of Freedom | Mean Squares | F |
|---------------------|--------------------|--------------|------|
| Pretesting | 1 | 4.22 | N.S. |
| WNM | 1 | 3.02 | N.S. |
| Pretest x WNM | 1 | 10.27 | N.S. |
| Within | 36 | 12.98 | |
| Total | 39 | | |

CHAPTER IV

DISCUSSION

On the basis of studies with normal populations (Holzman and Rousey, 1970, 1971) one would expect to find significant disinhibition in spoken thought among delinquents under WNM conditions. The theoretical literature does not support this expectation, however, when considering delinquents. A characteristic of delinquents, which certainly has implications for traditional treatment methods, has been described as marked verbal inaccessibility (Jaffe and Polansky, 1962; Polansky, 1971). This inability or unwillingness to verbally communicate important feelings is readily connected with ego psychology theory as a major symptom of impulsivity among delinquents (Grossbard, 1962).

It might be argued here, then, that with the subjects in this experiment inhibition regarding verbalization was stronger than the experimental condition of WNM. In short, it seems that the censoring role of auditory feedback of one's own voice suggested by Holzman and Rousey (1970, 1971) and Klein (1965) is less important in delinquents than in normals. Speculation about why this might be so would not be useful at this point.

There are, of course, other or complimentary alternatives to this explanation of the findings of this experiment. One which is well worth exploring is related to socioeconomic level. Is the fact that the sample for this study was drawn from the lower socioeconomic level a major reason for the findings of no effect? Would a replication of this experiment with middle class delinquents yield results more consonant with those of the Holzman and Rousey (1970, 1971) studies?

Another variable which must be considered here is that of age. Although the work of Holzman and Rousey (1970, 1971) was done with older adolescents and adults, the present study used middle adolescent (15 through 17 years old) subjects. Do adolescents respond differently from older subjects when they cannot hear themselves talk? If so, is this related to developmental and maturational factors?

An area of study which needs further exploration is that of intelligence. While all of the subjects in this experiment had I.Q. scores of at least 80, the mean I.Q. was only 92.6. Within the range of 80 to 115 the scores were evenly distributed in near rectangular fashion. Thirteen boys fell in the 80 to 89 category, thirteen in the 90 to 99 category, and thirteen in the 100 to 110 category. The fortieth boy had a score of 115.

Possibly the most confounding factor in the study arises from the fact that although the samples were randomly drawn and treatments as well as order of treatments randomly assigned, the groups apparently were not homogeneous. This would seem to suggest that the population of the John G. Richards School for Boys is not a homogeneous one. That is to say, the boys there represent a variety of delinquent types rather than a single category of behavior problem.

Perhaps individual variability could be overcome to some extent by using longer periods of experimentation, but the obvious next step would be to obtain larger sample sizes. In discussing individual variation Broadbent (1958) strongly supports the assumption that, "the task which shows no effect (from noise) only does so because it fails to tell us everything about the man who is performing it (p. 93)."

Even though a scientific approach to further study would dictate the pursuit of, cornering as it were, and control of variables such as socioeconomic level, age, I.Q., and so forth, still the ultimate goal should be determined by usefulness of the knowledge obtained. This leads back, then, to a relationship between impulsive, acting out behavior and its attendant low level of verbalization.

Polansky (1971) in discussing the cause-effect relationship between verbal inaccessibility and emotional disability suggests that increasing one's verbal accessibility may lead to better emotional health. (More appealing is his argument that a measurement of verbal accessibility has good diagnostic potential.) The direction of the cause-effect relationship is not established, however. Are delinquents delinquent because they are verbally inaccessible or are they verbally inaccessible because they are delinquent? Would that the truth were so clear-cut.

At this point in time a fruitful treatment approach for delinquents might well be one aimed at increasing their verbal accessibility. It does seem logical that if one can get a delinquent to talk about his impulsive feelings he may not have to act on them. A similar approach was used in Horizon House (Villeponteaux, 1970). When it was discovered that the boys in the program became less defensive and did indeed talk more meaningfully in the midst of a crisis, crises were induced for the express purpose of making treatment gains. Put another way, their verbal inaccessibility was viewed as a defense which lowered at a point of crisis.

In summary, the results of this experiment have been negative ones which, while not consistent with other

auditory occlusion studies (Holzman and Rousey, 1970, 1971), do tend to support the theoretical literature of ego psychology. The delinquents at the John G. Richards School for Boys showed no difference in their responses, qualitatively or quantitatively, under WNM conditions.

The investigation should be pursued along the line of examination of other variables which might be influencing the effects of WNM. Specifically, socioeconomic level, I.Q., and age should be the next line of inquiry regarding WNM effects. Sample size should also be increased in an effort to control the influence of individual differences.

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APPENDIX A

SUBJECTS' RESPONSES TO TAT CARDS

CASE 00

Card 4. Looks like the lady in there, she likes the man but the man doesn't like her. He's trying to get away and is gonna leave her. She's trying to hold him back. He's mad. He's gonna leave mad and she's gonna be crying.

Card 7-BM. Looks like two people and they're gonna talk to each other. A man and his son. They're just gonna be talking to each other and that's all.

Card 12-M. Looks like a man's gonna try and kill him is what it looks like. Either that or the boy's asleep. He starts to kill him. The boy's gonna wake up and catch him.

Card 13-MF. Looks like a man. It looks like his wife or something is in the bed and he's done something he's ashamed of. It looks like you know he's just gonna start to walk off. He's gonna leave her laying there. And he's sad and disappointed in himself.

CASE 01

Card 4. It looks kinda like he's mad at her or something and he's going to it and she's trying to hold

him back. Seems like he don't want to talk to her. Looks like she's kinda sad or something. I don't know. I guess they'll break up or something.

Card 13-MF. It looks like to me that she's laying there on the bed. She died and he's walking away sad with his arm over his eyes crying or something. Like he don't know what to do. I guess he's gonna go call the ambulance or something. Then they're gonna come and ask what happened or see if they can find how it happened and what went on. Look liked she just died or passed away.

CASE 02

Card 4. A man's coming home from war and his wife. He's come home from war off a train and his wife grabs him and he's trying to look for somebody else. And then he goes on home with his wife.

Card 13-MF. A man walks in his house and sees his wife laying on the bed. He turns his head and don't know what to do. Somebody killed her. He calls the police and tries to find out who killed her and all. And they'll find out who did it.

CASE 03

Card 7-BM. It looks like a psychiatrist or father and son. They're talking about his troubles. About something that happened earlier. He looks kinda mad at the

younger one. It looks like he's scolding him. Not scolding him but telling him what to do. About the problem. He's still mad. I think they will finally get out of it. Will finally figure it out. Will solve it.

Card 12-M. Well, this looks like he's gonna strangle him. I reckon this guy must of done something to him earlier and he didn't like it. He probably broke into his house and wanted to kill him or something. I figure this guy here will probably wind up dead for killing this guy.

CASE 04

Card 4. A man and his wife probably talking about something they want to discuss with each other. And he's probably getting mad or something at something that happened. And he wants to find out so it'll be O.K. with them and they'll probably get back together.

Card 7-BM. It looks like two doctors who are trying to discuss over some, it could be heart tumors or lung cancer or something like that. They're going to find out if there's anything wrong with him but if there are he's going to help them.

Card 12-M. Looks like a man who's trying to help a boy who's sick with fever of something. He probably got sick from something he was eating. The man wants to find

out so he can help him. Give him his medicine. And he'll get well.

Card 13-MF. It's a man who comes in one night and finds his wife in bed half naked. And he's getting sick of, you know, fooling around with her and he's going to try to get a divorce if possible.

CASE 05

Card 4. It looks like a you know the man don't wanna have nothing to do with the woman and the woman probably wants him to kiss her. And they'll probably end up don't going with each other.

Card 7-BM. It could be where they are real sad because they lost a death in the family or something like that I can't think of anything else.

Card 12-M. It looks like the boy is sick and this is the preacher praying for him. He was going to touch his head for some reason. If he's just asleep he'll probably wake up. He'll probably get better.

Card 13-MF. Someone broke into the house or something and took all the clothes off her or something. Or killed her or something. I guess that's all I know.

CASE 06

Card 4. This man and woman got married and went on their honeymoon, I reckon. And they are happy. He's gonna

go to work or something is what it looks like. She doesn't want him to go. But it looks like he's gonna go anyway.

Card 7-BM. Those are two men talking about a job. About a job or something. The man's gonna try to give a job to the other man I reckon. And he'll take the job.

Card 12-M. Looks like somebody's dead and somebody's standing over him. And crying.

Card 13-MF. Man and a woman are in the house. She's laying down with her clothes off. She wants him to do something and he won't do it. And he'll go on outside I reckon because he don't want to do nothing.

CASE 07

Card 4. This man. Let me see. This woman, you know. This dude caught this man with his wife and this woman's trying to hold him back but he still wants to get out. And so finally she talks to him and gets him all calmed down and everything.

Card 12-M. This dude, you know, found this woman. He found this man and he's real sick and everything and he's wanting to help the dude but he doesn't know what to do. And he's getting ready to check and see if he's still living or not. So finally he checks him and the fellow's all right. So he figures he calls the doctor and the

fellow will be all right. So he calls the doctor and the fellow turns out to be all right.

CASE 08

Card 7-BM. It looks like the story of a father and his son, the father explained to his son the hardships of life and the things he'll have to face later in life. And the son seems very considerate about those things and I think he'll follow this father's recommendation.

Card 12-M. Well to me it looks like there's been an accident of some kind and the one that's lying down looks like he's more seriously injured than the one standing above him praying and hoping to God his brother or son or whichever he is whether akin or not any will live.

CASE 09

Card 4. That looks like a man with maybe his girlfriend or wife. He's probably mad at somebody and wants to go after him and she's trying to hold him back. She might keep him from going or he might go after him but he'll probably get away from her.

Card 7-BM. Looks like that might be a man and his son. They're probably going someplace special or something. They've got jackets and ties on. They might be heading out to church or something. Well they seem happy. They both must be happy about something.

Card 12-M. That looks like a picture you find in one of Alfred Hitchcock's stories. Either a man might be hypnotizing this other guy or else he might be sleeping and he's sneaking up on him. I don't, this man right here might be, might hypnotize him or else he might try to hurt him or something. I don't know.

Card 13-MF. It looks like a man coming in and maybe finding his wife dead. Raped or something. Somebody probably came in to his wife and he walked in and saw her. He probably shot him. He'll probably call the police and they'll come and straighten it out I guess.

CASE 10

Card 4. Looks like he's mad at his girlfriend. Or wife. She's trying to pull him back and he's just walking away. And I figure that he'll probably come back after it's all fixed up. I guess he'll come back and stay with her afterwards. After they're not married anymore.

Card 7-BM. Looks like two lawyers talking it over in court. Trying to figure out. It looks like a lawyer talking to his defendant in the courtroom. To see if he's telling the truth and find out what he's going to say on the stand. And I guess he'll just come out even. All right. They'll prove that he's not guilty.

Card 12-M. Looks like a man sick in bed. Looks like a doctor came to help him. And I think he'll live.

Card 13-MF. Looks like a man came in the house and his wife was murdered. Somebody killed wife. And he's crying. He's gonna call the police. To see who killed his wife. They'll probably find out who killed his wife. Then they're gonna bury her.

CASE 11

Card 4. Well, the woman in the picture is Sara and the man is named Billy. And they met at the swimming pool. He was swimming and she was lying out. And he kept watching her and he knew that she was watching him but he just could not find words to go over there and talk to her. So he swam all day just watching her and he knew that she was cutting her eyes over at him until he got up enough nerve to go over and lay down beside her. And he went over and laid down beside her and asked her name and asked her how old she was. And she lied to him about her age. So he lied to her about his age. Because they were both just teenagers and they wanted to look older than they were. So at first it was just puppy love. And then they went to going steady, and they got married.

Card 7-BM. Once upon a time, there was this man and his son. And they never got along too good really. The boy wanted to have long hair and the father did not want him to. The father was old timey. So the boy hit a teenager and thought he was big, and he ran away from home and

stayed gone a couple of months and got picked up. He thought it was real good. Then he started talking to his father, and he got to where he was talking to him real good, and his father was helping him. His father put him back in high school and he graduated from high school and went to college. He stayed in college four and a half (4½) years. Then he was working on his Master's degree. He got his Master's degree and came back and showed it to his father, and his father started crying because he knew how many arguments they had had. He use to remember all the arguments. And how his father dropped out of school in the ninth (9th) grade.

Card 12-M. Once upon a time there was this grown man who never came out of his house. And he lived in a big mansion on the corner. Nobody would ever go around his house at night and you could not see anything but the door bell shining and so he had a son. And the son would come out just to go to the grocery store and then he would go back in and never say a word to anybody. So his father got sick and it was time to get prescriptions filled. And he could not get medicine for his father and his father was on his death bed. So the boy finally spoke to somebody and was trying to get help to come to his father. It was a deadly disease that his father had. The boy got help, and got some people to come over, and got him to the hospital.

The father had gotten just about all the way well and was ready to come home and the boy got it. Then they were back to the same house and they were just like they were before. But this time the father was running the errands and trying to get help for the boy. And the father was so old he did not want anybody to come in. He figured he could cast spells and use all this voodoo to bring him back to life. But the son had died and he did not know it.

Card 13-MF. There was this man and woman. They had been going together for a long time. And they always wanted to get married but they were too young to get married. So she was 23 and he was 21. He had not been drafted. So they had made plans to get married on July 4th. So the man, he really did not love her. She loved him deeply but he did not really love her. He loved her for her body. So July 4th came and they had a big wedding ceremony. On their honeymoon they had sex. And he got up right after that knowing that he had married her and was stuck with her and knowing that he did not have any choice. He just got up and started crying. He was ashamed for what he had done. He married a girl he did not even love.

CASE 12

Card 4. That looks like this man and this woman. They were going together for a long time. Some kind of man got in the way and he found out about it and he got

mad and he said he was going to kill him and the woman begged him not to. Finally he came to his senses and found out that whoever told him that was just a big lie. And they finally got married and him and that other man became good friends.

Card 7-BM. That looks like a young man getting ready to go into business. Business he's been practicing for a long time going to college. He's been going through college. That's his father up there telling him how the job is. The man's thinking about the job, whether he's going to take it or not. And he's gonna take it. Later on he becomes such a good man in his job. His boss dies and he takes his man on the job.

Card 12-M. That looks like a man that's been practicing hypnotism since he was a young boy. He got up and he was talking to this man saying that he could hypnotize him and the man says he couldn't. So he shows him that he could hypnotize him and puts him to sleep. Then he puts him to sleep and the man goes into a trance and the man can't come out of the trance. They go to all kinds of specialists trying to get him out of a coma. He comes back to and the man tells him he's sorry and he quits hypnotism forever.

Card 13-MF. That looks like a man. A married man. He and his wife got in a big fight. Then he got mad and

run off one night and went to a party and started drinking. He got in with a woman who got drunk. He didn't know what he was doing and he got drunk. They messed around and he had sex with her. He sobers up and he knows what he's doing wrong and he goes home to his wife and apologizes to her and tells her he'll never do it again.

CASE 13

Card 4. This is about this man who's found somebody messing with his wife or his girlfriend. And the lady in the picture beside him is his girlfriend and he's about ready to kill him. The man has been messing with his girlfriend. And his girlfriend doesn't want him to and she's trying to hold him back from it. He'll finally just jerk loose and walk on out and do what he's gonna do.

Card 7-BM. Looks like a father there with this young man and this young man has been in some kind of trouble. The father's trying to tell him what to do but the young man figures he's grown so he should be able to make his own decision. So he's mad and he doesn't like the idea of his father trying to tell him what to do. His daddy's a very understanding man so he can understand how his son feels.

Card 12-M. Maybe this man can take the place of a magician. He's up in front of his audience and the background is black so he can't see nothing. And he's gonna

try to pull a magic trick and have a man lay down on a board here with his head propped up. Then he'll say a few magical words here and there and he gonna put his knee on that board and make that man rise up in the air with no help from nothing. He's gonna make the audience believe he's really got the power to make this man do whatever he wants to do. While he's unconscious. So he'll step on a button down there and a little machine back there will lift him up off the table.

Card 13-MF. Maybe this is just. They just got through you know having relationships with another woman besides his own. And later she said something like she was going to tell his on him or something like that and get him in trouble and charging him up. Or she's gonna blackmail him. So he decided well if she's gonna tell on me then there's not but one way I can get out of it so he kills her. And the gesture with his arm in front of his eyes shows that he feels guilty on his side and wishes that he never had done it and feels terrified 'cause he doesn't know what's gonna happen. So he's gonna try to run and get away.

CASE 14

Card 4. They're making love you know. I guess he's worried about another woman or something. He's married and his wife might walk in on him you know. And

she's trying to get him to stay. And he's saying no he's gotta go. He tells her he's married and can't stay there all night. So he leaves.

Card 7-BM. Definitely these are photographs. About a what president died you know. How he died and everything you know. And his grave you know sort of looked like. Pictures and films and stuff. Well they're deciding on a big old frame or something you know. They're gonna take a picture and hang it up in a museum or something.

CASE 15

Card 12-M. The man there looks like he's gonna kill that man laying on the bed. He must of done something to him. It looks like he's gonna kill him. I don't think he will kill him. I think he's gonna wake up before that. He'll grab the other man and beat him up I reckon.

Card 13-MF. He just got through making out. I reckon he had fun you know. Making out with her or something. Looks like he's been drunk or something. He's tired. I reckon he had a pretty good night.

CASE 16

Card 4. Looks like they had a fight. He's startin' to leave and she don't want him to. And he won't leave.

Card 7-BM. He's tellin' him to do somethin' that's right. He thinks he makes a lot of sense. They both agree on it.

Card 12-M. It looks like a boy's puttin' somethin' in this other boy's face. The boy is sleeping. He'll wake up and he'll catch him.

Card 13-MF. She looks like she's dead. The man looks like he's crying. Uhhh, I don't know what'll happen he'll call the hospital or somethin'. She'll be dead.

CASE 17

Card 7-BM. Looks like a father talking to his son about something. Important. I guess about a house or something. He can't pay for something or something. He needs money real bad or something. And he's asking for it. And he's hoping he'll get it but he don't know if he can or not. But, he'll probably give it to him.

Card 13-MF. Looks like a boy went into the house with his girlfriend or something. And he's ashamed or something. That he's ashamed and he's got his face covered. Nothing happened yet I don't believe. He'll probably get his books and leave. Might come back. He'll probably come back.

CASE 18

Card 4. The girl. The man walked up to the girl and he must not be in a romantic mood. In the picture I see here. And the girl's trying to seduce him. Probably to bring him to bed with her for sex activity. But the man he probably just doesn't feel in the mood for it right now. Well he'll probably if she keeps egging on they'll probably end up doing it just to satisfy her.

Card 7-BM. The man he just got the word that he's being laid off and it was a real important job that he had but he didn't have the high school diploma or any of that. This is his father talking to him giving him some encouraging words. You know the old saying "If at first you don't succeed, try, try again." So he took his father's advice. Now he's in a big electronics job. He's president of a big electronics firm.

CASE 19

Card 7-BM. I have seen a picture like this in some school sometime. Then again, I ain't sure I did, but I thought I did. I've seen naked pictures drawn with the same kind of ink and material and stuff. Looks like the older man is trying to talk to the younger man about some of his problems or something. Seems like things'll end up O.K. He'll have his problems worked out.

Card 13-MF. Looks like this guy either just raped this woman or something you know. Could have broke into her house and raped her or something or maybe was just having a love affair or something. If he did rape her you know probably the police would come around and all and they'll look for him and stuff like that uh. He'll get locked up.

CASE 20

Card 4. It looks like she's mad or something. Looks like he's mad. She's trying to keep him from running off or something. And he'll probably go anyway. And he'll probably go out and get drunk and come back.

Card 12-M. It looks like he might be sick or something. And he's having a prayer over him. Having a prayer over him. Probably stay by his side until the doctor comes. He'll probably get well and go on out.

CASE 21

Card 4. This looks like a woman trying to kiss a man and the man don't want to have nothin' to do with her. But the woman she's really got a lot of spirit so she's gonna try the best she can to kiss this man. But the man's just not goin' to pay her any attention. But eventually he'll see how much she loves him and then they'll get together.

Card 13-MF. Well, this looks like a man whose been on this woman for a while. Sorta looks like she's about half dead and the man looks like he's not gonna make it too much longer himself. Both of 'em look real tired and it's just gonna end up the same way again with 'em. She's gonna be layin' there again and he's gonna be gettin' up again.

CASE 22

Card 4. Looks like a woman and a husband. The man's about to go somewhere and get into trouble and the woman's trying to stop him. It might turn out to be something like a divorce or separation or something of that nature. The man'll probably get in trouble.

Case 7-BM. Looks to me like the boy's done something wrong and his daddy's talking to him. The boy got real mad at him or something and is upset. He felt kind of sorry for what he had done. Seems to me like everything will turn out all right. It all depends. He might put him in a school somewhere.

Card 12-M. Looks like somebody fell asleep and a witch or something has cast a spell. Trying to put him to sleep or either trying to wake him up. It might just turn out to be. I don't know. It might turn out the fellow has got death or a bad spell cast on him. He might die.

Card 13-MF. Looks like that man has been in this woman's room you know. He just killed her or raped her or something. He's just fixing to leave. He goes out and the law might catch him and lock him up and send him somewhere.

CASE 23

Card 12-M. This man here he's trying to put this boy under hypnosis. And the boy goes under hypnosis and comes out of it about 30 minutes later. And he's all right. He was having some sort of weird dream or something so the man puts him under hypnosis and he comes out of it all right.

Card 13-MF. This man's he's working on the second shift and the woman she's asleep. And he comes in off the second shift and he's going to bed. He's gonna get up in the morning and go back to work.

CASE 24

Card 4. It looks like this man here is drunk or crazy or something. Looks like there's a nurse helping him or something. Maybe it's his wife. Looks like he's gonna go crazy or something the way his eyes are looking. Then they'll put him in the State Hospital.

Card 7-BM. It looks likes this man and his son. Looks like the son has done something wrong and the father is telling him that was wrong and he shouldn't have done it.

He was correcting him and telling his son right from wrong.

Card 12-M. It looks like this woman is laying there on the bed. This man he looks like he's gonna kill her. I mean he'll be a murderer. I mean he'll say try to kill her.

Card 13-MF. It looks like this man just got out of bed and his wife fell asleep. He's gettin' up and gettin' ready to go to work. And he'll come back home that day when he gets off work.

CASE 25

Card 12-M. He must be a preacher or something. Somebody's sick and he's a preacher and fixing to pray for her. See if it'll make her better. He said if she believes in Christ she'll be better. She got better after that.

Card 13-MF. They're fixing to make love. They probably met somewhere. They got to the point where they decided to go to his room or her room. He's already made love to her and now he's fixing to leave. And so he leaves.

CASE 26

Card 4. This man is trying to leave this woman. He's wanting to go somewhere and the woman wants him to

stay with her. She wants to make out with him I guess. He's gonna leave. He ain't gonna stay with her.

Card 7-BM. Looks like two men quarreling. I don't know. But it looks like a man. An old man talking to his son about something he had done wrong. He's going to give him a lecture on how to better or not. And I guess he'll do better.

Card 12-M. Looks like a man who's got his hand up. Looks like a scientist or a magician is what it looks like. Hypnotizing a woman. And he's gonna bring her back to life by hypnotizing. Take her back up. And she's gonna be better again I guess.

Card 13-MF. Looks like a man that's had sex with this woman and he's wanting to leave now that he's done got through with her. She didn't want him to leave and he's tired. And he's gonna leave I guess.

CASE 27

Card 4. I figure this guy is this woman's boyfriend and he's mad about something. She's trying to keep him from getting in any trouble. She's trying to hold him back and I guess she'll eventually talk him into not going, not getting in any trouble.

Card 7-BM. This guy is telling a friend of his. No, he's showing him something. He's seeing something on the floor and he's showing him something. This other guy he

hasn't seen it yet. But after he says something and tells him something he will see it.

Card 12-M. This is this guy's brother. He got ill and had been ill for a long time. Finally they, he died. He's really trying to think of him not dead. He's trying to say, well I can't really believe it. And later on this guy he'll eventually get over it.

Card 13-MF. This guy's wife got sick and she may have been sick for maybe a month or so and finally died. And this dude, he'll get over it pretty soon.

CASE 28

Card 4. It looks like a man and a woman having an argument about something. And the man is gonna leave. She doesn't want him to go. She wants to make up with him. She'll talk him into staying and things will be O.K. for them after a while.

Card 7-BM. Well it looks like two men are arguing about something. They are trying to think of what to decide on. They got an argument about some money that the other one owed him. The other guy says he does not owe him. So finally they decide who owes who and they pay it.

Card 12-M. A man is trying to put another person into a hypnotic trance. He is trying to help him with some of his problems. The man that is laying down has been there. He has been having problems with seeing things. So

he goes to the guy that is hypnotizing him, and he is hypnotizing him trying to help him find out what is causing the problems. He is going to try to find out what is causing them. And he will find out.

Card 13-MF. The man has just come home and found his wife laying in bed dead. He went out to a bar and he had just come back. She is laying there dead. He is up there crying. He is trying to figure out how it happened. Why should such a thing happen to him. The police will come and will find the murderer. He had done it.

CASE 29

Card 4. Looks like they are planning a part in a movie. She's trying to make love to him. He's walking away. They'll end up fighting. They'll break up.

Card 7-BM. Looks like a father telling a son what to do. They're sitting there talking. The father's trying to tell the son about what he's done wrong. Or something he shouldn't have done. And they break out in an argument and start fighting and the son will walk out the door.

Card 12-M. That looks like a man when he hypnotized a woman. Put her to sleep. And she's gonna stay asleep awhile until he comes back over and wakes her up.

Card 13-MF. Looks like he just got out of bed with his wife. He's gonna go eat breakfast and go to work.

CASE 30

Card 7-BM. I will say this was a man in trouble. And it's a lawyer talking to him. I'll say the jury finds him guilty and they're trying to talk it over right now. I say he'll be found guilty and will be sentenced somewhere.

Card 13-MF. I'll say both of them had a little bit to drink and they came home and went to bed and both of them not married. And the man decided to go home so he gets up and puts his clothes on and starts to leave. I guess the woman will wake up and a couple of months later she'll find herself pregnant or something.

CASE 31

Card 4. Along time ago, this man and this woman met. And this woman fell in love with this man. And then the man did not--the man liked her but he did not love her. And then after that, the man turned away and run away. She started crying. Then a day later, he come back. And then they finally got married and moved to New York. And the man died, and then after the man died she came back to her hometown and lived for the rest of her life.

Card 7-BM. Along time ago, this man raised his son and his son finally grew up into a young man. He got into some trouble and his daddy had to get him out of jail and his daddy is there now trying to talk some sense into his head, and his daddy is up there trying to talk some sense

into his head and then after that the boy straightened out and got married and lived ever happily and lived the rest of his life.

Card 12-M. Along time ago this woman, she was in her bed sleeping and a man broke into her house and he was planning on killing her and he walked up to her bed. The woman wakes up, screams, the man tries to kill her and then after that the man runs off. The cops caught him. And he got ten (10) years in prison.

Card 13-MF. This man and this woman, they got married and then the man went to work one day and then somebody come into his house and raped his wife. He made sex with her. She tried to force and then her husband come home and the man got away. The man turned his back and started crying. And then after that, the woman got up and put her clothes on and then the man--they straightened everything out. They finally got a divorce.

CASE 32

Card 4. Looks like a man who is getting ready to leave out on his wife and she don't want him to. Then if she does afterwards he'll get a divorce and then marry.

Card 7-BM. Looks like a man having a conference at a thing. This man here is the one getting questioned. Then after he gets through questioning him they'll go on to another one about whatever the subject is.

Card 12-M. Looks like a man is getting ready to kill a woman. If she don't wake up he'll probably smother her in bed. Then he'll have to go to the pen.

Card 13-MF. Looks like a man getting out of the bed with his wife. Going to work. Early in the morning and his wife's still asleep. He goes in the kitchen and after that he'll find that he ain't got nothing to eat and he'll have to wake her up.

CASE 33

Card 4. The woman is telling the man that, to stay away from the woman in the background. And he doesn't know what to do because he's all confused so he makes up his mind to kill them both.

Card 7-BM. The two people in this picture are talking about business they have to attend to. And they are arguing about which one is gonna do it, bout which one stays. 'Bout which one is gonna go and which one stays. And then it winds up they both go.

Card 12-M. The man is fixing to wake the boy up. Uhhh, so that he can cut some firewood. Then when he just starts cuttin' the wood right before he gets cuttin' axe breaks.

Card 13-MF. The man standing up in the picture is tired and has a headache and wants to go to bed. But he has work to do. In the house. And he can't leave the

work just like it is because somebody can get hurt on it. He's gonna fix the work and go to bed.

CASE 34

Card 12-M. Looks like a man, you know, praying over a sick person. He is a kind of a witch doctor or something. He is trying to make him well or something. He is praying he will get well or something. He will either die or get well.

Card 13-MF. Looks like a man who overslept with his wife or shacking up with a woman or something. He woke up late. Looks like he just woke up. He had to hurry up and go somewhere. He overslept.

CASE 35

Card 4. It looks like he's got a problem. They got in a fuss and something like that. She's trying to talk it out and he's trying to run off and won't reason with her.

Card 7-BM. Looks like a boy's father is explaining something to him. Looks like something happened and he's explaining it to him. Talking to him about it. To see if he can help him. And the boy'll go along with what his father says.

Card 12-M. It looks like he's hurt his eyes in some way and he's trying to help. And I think he can if he wants to. And he probably will help him.

Card 13-MF. Looks like to me it's a man and a woman who've just got through making love. Could be they just got together. They've been out drinking or something. Now looks like he's leaving.

CASE 36

Card 4. Once upon a time there was this man he was an alcoholic he married this woman who was a Christian and she didn't know he was an alcoholic. One day he came home when he was drunk when they had a child uh that was mentally retarded. He got mad at the child and tried to kill him and the mother was trying to hold him back.

Card 7-BM. Once upon a time there was this man who had a lot of problems that he couldn't solve. He couldn't solve any of them. So one day he went to the psychiatrist and wanted to have a talk with the psychiatrist. He made an appointment and they discussed his problems. And he felt better afterwards.

CASE 37

Card 4. Well they're husband and wife and looks they've been in a fight or something and he's fixing to leave and she's trying to stop him. She'll stop him I reckon.

Card 7-BM. They look they're kinda discussing business. The fellow's over there trying to get him to

go to work for him or something. And I believe he's going to work for him.

CASE 38

Card 4. Well, this is a war picture turns out this dude he got wounded in the war and he's in the hospital now. And they're talking about he's got to back and fight and the girl doesn't want him to. And she's begging with him and all that and finally he just goes ahead and goes.

Card 13-MF. Well, this guy he was hearing lies about his wife and so one day he came home and found her you know with another man. He made the man leave and then he killed her and then he's sittin' there thinkin' about what he's done.

CASE 39

Card 7-BM. I reckon you can say that that man is this one's father. He did something wrong and he and his father are racking around. I think he'll try to do better next time.

Card 12-M. Well, I'd say these two men were in prison together I reckon. And this one laying on the bed was supposed to be the big man in the pen. This here was one of his runners, backers. And some how or another they got messed up and he had his backer beat up for not getting him what he wanted. His backer is getting into his cell to kill him and he's gonna kill him and then take over.