EMPIRICAL EVALUATION OF "CLINIC"
A COMPUTER SIMULATION TECHNIQUE

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A Thesis

Presented to

the Faculty of the Department of Psychology

Appalachian State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Douglas S. Johnson

August, 1973

ABSTRACT

Empirical evaluation of "Clinic", a computer program dealing with classical diagnostic labeling, was attempted. The study attempted to evaluate "Clinic's" twenty-five case library on two criteria : 1). diagnostic evaluation of each case, and 2). the correct ordering of the clues contained in each case.

Forty undergraduate students of an Abnormal Psychology course empirically demonstrated that students with a working knowledge of psychiatric nosology can arrive at the same diagnostic conclusions as those in "Clinic". Point Biserial Correlations showed "Clinic" to be invalid as a grade predictor, while Coefficients of Concordance and Rank-Order Correlations demonstrated the clue ranking in "Clinic" to be highly reliable.

Conclusions tend to support the overall reliability of "Clinic" and will serve as pilot data for further investigation.

ACKNOWLEDGEMENT

This thesis would not have been possible without the moral support and intellectual guidance from Dr. Bob Maris, Dr. Dick Levin, Dr. Walter T. Snipes, Dr. Dan Duke, Dr. Paul Fox, and Dr. Bill May.

Special thanks should be given to Dr. Michael C. Carter whose tireless efforts and unselfish help made this thesis possible.

Last, and most important of all, I acknowledge deep appreciation for the hard work from my loving and considerate girlfriend, Elaine.

Thanks again to everyone.

Douglas S. Johnson

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INTRODUCTION

Review of Literature

Computer simulation programs have been tried within the area of psychology for several years. Wortman (1970) described an experiment dealing with a classification process similar to medical diagnosis. In it, S's solved an object identification task by being presented a single cue, followed by a sequence of yes-no questions about the presence or absence of other cues and terminating with the identification of the object. Results were interpreted as supporting a serial hypothesis--testing model and gave empirical support to the methodology in the creation of "Clinic". The study was viewed as a necessary step toward the creation of a computer model of medical diagnosis.

This type of logic as been successfully utilized as early as 1968 when Spitzer and Endicott created Diagno, a computer program for psychiatric diagnosis. They described a computer program based on a logical decision tree model similar to the differential diagnostic procedures employed in clinical medicine. The output Diagno gave was one of twenty-five standard American Psychiatric Association diagnoses and qualifying phrases as well as two unofficial diagnoses--not ill and nonspecific illness with mild symptomotology. The reliability and validity studies reported indicated that even at that early stage in the development of computerized

psychiatric diagnosis, the method they described had sufficient validity for use in research.

A year later in 1969, Spitzer and Endicott superseded their previous program with Diagno II. This program was simply an extention and improvement of Diagno (now referred to as Diagno I). In the validity study reported, the program yielded diagnoses for 100 patients which agreed with diagnoses supplied by clinicians as well as did the diagnoses supplied by different clinicians on the same cases.

In his article entitled "An Internist Assesses Future Computer Use", Dr. George M. Morrow (1969) concluded,

> The ability of Diagno II to simulate the clinical judgment employed in establishing a psychiatric diagnosis is supported by the data presented. In terms of arriving at a clinical diagnosis in agreement with psychiatrists, Diagno II is clearly superior to its predecessor, Diagno I. A comparative analysis of Diagno I and II suggests that the diagnostic superiority of Diagno II is the result primarily of the expanded input of information to include past as well as present history, with the judgments graded on a six-point scale rather than either a yes or no response.

In addition to this somewhat encouraging discussion, Platman and Weinstein (1970) investigated the efficiency of Diagno II, in diagnosing 150 manic-depressive patients in a research metabolic unit. Standard psychological variables including the MMPI and structured diagnostic interviews were used as measures. The data indicated that the computer program was able to catagorize patient populations into nonsick, neurotic, and psychotic groupings. It was concluded that Diagno was completely reliable as contrasted with clinicians

in that "when given the raw data describing an S, a computer program will always arrive at the same diagnosis".

Melrose (1970) discussed a very elaborate program testing device he used to test Diagno II against traditional clinical evaluation. In this study, Current and Past Pathology Scales (CAPPS) data on 413 psychiatric patients were analyzed by stepwise discriminate analysis to obtain numeric models for 14 diagnostic catagories described in the American Psychiatric's Associations's Diagnostic and Statistical Manual of Mental Disorders. These models were then used to classify 225 new cases from the same source of psychiatric patients, and the results were compared with diagnoses made by clinicians. Using the Kappa Statistics as a basis for comparison, discriminant analysis first choice diagnoses agreed with traditional clinical diagnoses only about half as well as with Diagno II.

In a similarly related area, Benfari and Leighton (1970) discussed their program "Probe", a computer instrument for field surveys for psychiatric disorder. In their paper, they discussed the development of a computer version of the Stirling County psychiatric evaluation procedure, consisting of sequential ratings, i.e. detailed symptom patterns and ratings of psychiatric status ("caseness"). Evaluations were concerned with field survey questionaires and were used for research in psychiatric epideminology. Two hundred and ninety respondents, evaluated by a group of trained psychiatrists, were used for the developmental steps of questionaire items, relationships to detailed symptoms, detailed symptom relationships

to "caseness", and cross-validation of the relationships to an independent sample. The Likert Item Scale difference was used to assign weights to questionaire items as they pertained to relevant detailed symptom patterns. Cross-validation results made it evident that the agreement between "Probe" and the psychiatric joint evaluations were equal to or greater than base-line agreements. This evidence suggests that "Probe" might indeed be useful.

Other programs have been attempted. Sletten, Altman and Ulett (1971) discussed their clinical computer program at the University of Missouri. Here, data was collected by clerks, technicians, relatives, and staff to build a base that helped predict significant patient behavior and outcome. Computer generated probability statements regarding diagnostic classifications are now routinely provided to clinicians. These have been augmented by statistical techniques designed to help predict length of hospital stay, risk or running away, and assaultive ideation.

In a similar study, Stroebel and Glueck (1970) described a system they utilized in which factor scores obtained on a routine daily basis for each patient from computer-scored nursing notes were subjected to sequential analysis to yield computer global decisions of "significantly 'better', 'worse', or 'unchanged'", without specific research techniques. The authors concluded,

> The systems simplicity, objectivity, and enhanced reliability should make computer derived global decisions an attractive and

> extensively applicable technique in a wide variety of clinical and research settings.

In a previous paper (1969) Glueck and Stroebel concluded:

> The computer poses intriguing challenges about the ways patient data may best be presented to aid clinicians. . . . After he sets up guidelines for establishing catagories, the computer provides him with information about previous cases; if the optimal weights appear to possess reasonable validity he asks for a prediction about potential decisions concerning a current patient.

In summary, these attempts at computer diagnosis have demonstrated that classical diagnoses can be reliably made on the basis of discrete behavioral data.

In a slightly different manner, computers have been utilized in clinical medicine both in a personality situation as well as a personality assessment situation. Loehlin, (1969) entitled his paper "Machines with Personality" and in it described two computer programmed models of personality. "Aldous", the first of the two models, is restricted to broad, generalized responses and is based on a variable conceptual framework; while K.M. Colby's model of a neurotic personality "attempts to simulate in some detail the mental and emotional processes of an individual", and was based upon the psychoanalytic theory. From these two models presented, it was postulated that in the future machines with personality could function to clarify and communicate ideas about the processes underlying personality, as predictive devices for particular individuals, and as an educational aid for students training in occupations which require skill in dealing with people.

Kleinmuntz (1969) in his paper, "Personality Assessment by Computer", discussed the application of computers to: a) factor analysis in personality assessment, particularly in the development of test items, b) interpretation of test profiles, c) process of interviewing, d) content analysis of personal documents, and e) simulation of normal and abnormal personality. Kleinmuntz concluded:

> It is concluded that the future of the computer as an information machine and decision maker in personality assessment is bounded only by human ingenuity in developing programming language. . . since the computer can quickly search out and yield large amounts of detailed personality data. . . .

This personality assessment has been put to good use as Gianturco and Ramm (1971) have described. Their paper discussed a pilot network consisting of IBM 2741 terminals that connect Cherry Hospital to Duke University which is 75 miles away. The system allowed users to write narrative reports, score behavioral scales, search patient files and store census data. Also, it allowed the physician to write medication orders. Since the system has been in regular active use, the major benefits to the physicians have been found in the regular narrative and graphical information about patients which have enabled the physician to keep well informed, to utilize consultation more effectively, and to provide continuity of care.

The field of computer research in psychology has been quite extensive. The reliability and validity of programs such as "Probe" and "Diagno II" have weathered well under

empirical evaluations. Personality variable has been utilized in computer research both as an assessment aid and as a simulational procedure to perhaps gain further insight into the complexities of human behavior. In the program "Clinic"* an attempt has been made to utilize the existing knowledge of computer diagnosis and decision-making in a novel way. Rather than providing diagnoses based on data fed into the computer; for educational purposes, this procedure has been reversed. Behavior data was presented by the computer to students who themselves must make the diagnosis. "Clinic" thus represents not necessarily a new idea, but rather, a continuation of exploitation in the field of computer experimentation and psychology.

Description of "Clinic"

The program ("Clinic") involved a "case-history" approach in which the student was presented a series of "clues" concerning deviant behavior. After each clue, the student was asked to diagnose the patient being described. The "Clinic" library held twenty-five cases and each case contained between four and six clues. The cases were structured so that relevant cues leading to correct evaluation were placed within each clue. The clues were ordered so that the student was presented with the more ambiguous information first. Only the most astute student of abnormal behavior would be able to diagnose correctly

*The author wishes to thank Dr. Marvin L. Kumler, Associate Professor at Bowling Green State University, Bowling Green, Ohio for his invaluable assistance in serving as an initial stimulus for creation of "Clinic".

with only the first clue. Clues became progressively more revealing until the last clue which contained the most revealing and specific information. The clues were threaded together so that a story was disclosed about a patient, a doctor, etc. After each clue, a student was given a chance to answer the correct diagnostic label. He was then either congratulated by the computer for a correct answer and asked if he would like another case, or if his diagnosis was incorrect, he was given the next clue. If all the clues were missed and the student still came up with an incorrect evaluation, then the student was told where to find the answer in his book and asked if he desired another case. In summary, the student was asked to act as a "detective" and correctly diagnose a case on the basis of revealed clues.

The procedure used for the creation and execution of "Clinic" involved three basic steps. The first step was the generation of the cases. The second step was the programming of these cases into the Conversational Programming System (CPS) of an IBM 360/75 computer. The third step involved having subjects (students) interact with the computer, inputting information and receiving the appropriate feedback.

In the first step, cases were generated. Arieti (1959) and Ullmann and Krasner (1969) were the major sources used. The same procedure was used in generating all twenty-five cases. Texts were consulted to find the major symptoms associated with a specific disorder. These symptoms were then used as a basis for the clues which make up a particular case. For

example, Ullmann and Krasner (1969) stated that schizophrenic behavior is characterized by:

> . . . rate of response of disrupted as if the person were responding to nonrelevant information or stimuli. . . the mechanisms responsible for the direction and maintenance of attention in the normal individual seem clearly disrupted. . . the schizophrenic is responding to internal, idiosyncratic, autistic stimuli and hence that his perception on the experimenter's stimuli is "interfered with". Finally, there are the delusions and of hallucinations that, together with disorganization of thinking, usually lead to the clinical diagnosis of schizophrenia. (pp.383-385)

Each case, therefore, was a mosaic of clues portraying classical textbook symptomotology. Cases 1-25 have been provided in Appendix I.

In the second step, the cases were put into the computer. This step no only involved typing in the case, but coordinating the entire program so that the program could function adequately as a complete unit, therefore interacting with the students in a variety of ways. How this was accomplished is included in Appendix II.

The third step was to tie all of step two, with its various subparts together and create a smooth, easy-to-work and easy-to-understand program for students to follow. The program was attempted by most of the Psychology Department (both faculty and graduate students) at Bowling Green State University. Also, it was tested with several "field" clinical psychologists. All gave high notes of praise, and many completed the entire twenty-five case library. None disagreed with any of the case content and one of the field clinical

psychologists commented on how well these compiled cases represented typical symptomotology of classical disorders.

Statement of the Problem

Although these pilot data were encouraging, an empirical evaluation of how representative these compiled cases were still must be carried out. It was the purpose of this study to demonstrate that these cases do reflect typical symptomotology for the various disorder. If the cases were representative of classical symptomotology, then students with a working knowledge of psychiatric nosology should arrive at the same diagnosis as that of the computer program, "Clinic". In addition, since it has been assumed but never demonstrated that the clues were rank-ordered from least to most revealing, an empirical validation of this assumption was also necessary. Therefore, a second purpose of this study was to demonstrate that the clues were rank-ordered as has been previously assumed.

METHOD

Subjects

The subjects used in this experiment were 40 undergraduate students enrolled in an Abnormal Psychology course at Appalachian State University, Boone, North Carolina.

Apparatus

The apparatus used was the computer program "Clinic". It was broken down and presented in a "booklet" form (see Appendix III).

Procedure

The clues in each case were randomized using a table of random numbers (Matheson, Bruce, Beauchamp--1970). Once randomized, each set of clues were presented in a "booklet" form (see Appendix III). The instructions were given to the students to rerank the clues in their correct order and make an evaluation for each case using one of the reactions found on page two of the booklet. The student progressed in like manner evaluating the case and rank-ordering the clues throughout the twenty-five cases. It may be noted that the diagnostic labels used were the most current one from the revised Diagnostic and Statistical Manual of Mental Disorders (DSM-2; APA, 1968). In addition, reaction 45, no pathology present, was included.

RESULTS AND DISCUSSION

Evaluative Techniques

Two basic statistical techniques were used to analyze student's evaluations, and two other statistical techniques were used to analyze student's rank-ordering of the clues. A computer program had been designed to analyze the data.

To analyze the evaluations, the procedure was as follows: The mean and standard deviation of each student's number of correct responses (out of a possible 25) were correlated with final grade (based upon total points accumulated over the quarter) using a Pearson Product-Moment Correlation Coefficient (Edwards-1967) to gain an overall picture of how the students' diagnosis agreed with computer labels. The second techniques was to evaluate the class as a whole on a per question basis. The evaluation (correct or wrong) was a dichotomy and this was correlated with class grade (a continuous measure) using a Point Biserial Coefficient of Correlation (Edwards-1967)

To analyze the rank-ordering of the clues, the procedure was as follows: The first analysis compared a student's ranking of the clues on each case with his rank in the class. The Kendall Rank Correlation Coefficient (Siegel-1956) was used and the output was 25 correlations per student (one per question) times the number of students taking the test (40). The second evaluative technique measured the amount of overall

agreement or disagreement on the student's reranking of the clues as compared with the original ranking of the clues in the development of the cases (see Appendix I). The Kendall Coefficient of Concordance (Siegel-1956) was used and the output consisted of 25 correlations, one per question. These, then, represented the four evaluative techniques used in the overall evaluation of the case content of "Clinic".

Evaluative Results

Visual inspection of the data (Table 1) reveal high agreement between student responses and the correct computer diagnosis. The only exception to this was case 12 which only six people correctly evaluated. The problem, however, may be explained more in terms of student inability to detect subtle differences in symptomotology rather than outright error in presentation. Case 1, 14 and 15 also reflect lower than usual agreement. The lower totals for these cases may also be due to the subtle differences in diagnostic labeling and students' inability to recognize them completely. A scored response that was half right was given no credit, and the four cases that received the low scores represented especially subtle and complex differentiation between labels.

TABLE 1

Total Responses Correct (out of 40 possible points)

Case 1=16	Case 6=24	Case 11=37	Case 16=34	Case 21=27
Case 2=29	Case 7=37	Case 12=06	Case 17=35	Case 22=31
Case 3=33	Case 8=31	Case 13=37	Case 18=31	Case 23=32
Case 4=34	Case 9=32	Case 14=18	Case 19=33	Case 24=24
Case 5=25	Case 10=37	Case 15=18	Case 20=31	Case 25=31

Rank order correlations indicte how students agree or disagree with the "correct" ranking of clues within each case (Table 2). The correlations are on a per student per question basis averaged across 25 cases. The standard deviation is also given. As can be seen from the data, the correlations were all positive and quite high indicating a high degree of agreement with the ranking of clues in the program "Clinic". The standard deviations were very low for each student showing that variability was slight and that the average correlation was a good predictor of each student's responses on the twenty-five cases. The two lowest correlations had the highest standard deviations, This implies that the student's responses were more variable overall and this could be directly related to guessing which would be reflected in the increased standard deviation.

TABLE 2

Average Rank Order Correlation and Standard Deviation (per student)

I.D.	Av. Rank	Stu. Dev.	I.D.	Av. Rank	Stu. Dev.
4153	.8713	.2175	5693	.8907	.1899
9018	.9067	.1490	6240	.7733	.2701
1233	.9280	.1275	0296	.8713	.1843
3738	.8667	.1850	1712	.8960	.2013
3031	.9040	.2170	6408	.8693	.2232
0303	.8293	.2381	4434	.9120	.1536
5880	.8720	.1990	5974	.8560	.1960
7127	.8733	.2260	2105	.8213	.3170
2511	.9147	.1400	1092	.8453	.1853
4554	.8107	.2370	8154	.8240	.2193
6316	.9120	.1740	2103	.8400	.2104
8721	.8507	.1928	4477	.8053	.2960
1808	.8800	.1836	0601	.8427	.1999
2189	.8587	.2197	4771	.9307	.1380
2941	.9200	.1540	3724	.8773	.2097

TABLE 2 (cont'd)

I.D.	Av. Rank	Std. Dev.	I.D.	Av. Rank	Std. Dev.
8705	.8990	.1634	0882	.6907	.1914
0120	.8827	.2230	5347	.9600	.2000
0357	.7547	.2485	1619	.8640	.1906
1477	.9300	.1604	9227	.8693	.2000
8033	.8933	.1944	8511	.8533	.2301

Coefficients of Concordance were calculated for each of the twenty-five cases (Table 3). These coefficients of concordance give an overall picture of how well the students agreed collectively with each other as to the proper ranking of the clues. The high correlations obtained indicate that students agreed collectively with each other a majority of the time. In addition, these correlations considered with those given in Table 2 indicate that not only did students agree with each other with respect to clue order, but that students also agreed with the order of clues assigned for each case in "Clinic".

TABLE 3

Coefficient of Concordance (on a per question basis)

Question	CC	Question	CC	Question	CC
1	.8031	10	.9905	19	.9839
2	.8933	11	.8286	20	.9766
3	.9618	12	.8129	21	.9424
4	.9809	13	.9153	22	.8491
5	.9905	14	.8601	23	.9059
6	.9723	15	.8606	24	.9701
7	.9356	16	.8956	25	.9134
8	.9563	17	.9091		
9	.8864	18	.8451		

Both the coefficients of concordance and the rank-order correlations obtained lend empirical support that the clues

were ranked from least to most revealing throughout the twenty-five cases in "Clinic". The two exceptions were cases 11 (W=.6286) and 15 (W=.6606). Other cases had coefficients of concordance greater than +.80 which represent strong agreement between subjects. Table 4 lists a frequency distribution of the 40 rank order correlations (one per student) on each of these two cases (11 and 15).

TABLE 4

Rank Order Correlations (one response per student)

Case 11 (W=.6286)	Case 15 (W=.6606)
.0 -xx	0 -xx
.1 -	.1 -
.2 -xxxxxxxxx	.2 -xx
.3 -	.3 -
.4 -xxxxxxxxxxxxxxxxxx	.4 -xxxxxxxxxxxx
.5 -	.5 -
.6 -xxxxx	.6 -xxxxxxxxxxxxxx
.7 -	.7 -
.8 -xxx	.8 -xxx
.9 -	.9 -
1.0-xxx	1.0-xxxxxxx

As the table indicates, the rank order correlations were rather low. This implies that students disagreed somewhat with the rank ordering of the clues in both cases as compared to the original ranking in "Clinic". However, the low coefficients of concordance on both cases imply that students also disagree widely amongst themselves as to the correct ranking of the clues. Further investigation will be needed to determine how these clues may be changed to make them more discriminable in terms of the value of the data they supply.

Table 5 summarizes the point biserial data for the twenty-five questions. This correlates all persons with total point

scores for the class (final grade outcome) on a per question basis. Essentially the point biserial correlation answers the question, "How valid is the program (per question) as a predictor of final grade outcome?" Visual inspection of Table 5 shows very low correlations. The correlations were essentially non-significant with the exception of question 7. This correlation, however, accounts for just over 50% of the variability, and for all practical puposes it too can be considered non-significant. Although the point biserial correlations were rather low, this does not imply anything other than the program is invalid as a grade predictor. Because everyone, regardless of final grade outcome, did well in evaluating the cases and this would lead to the low point biserial correlations obtained. In addition, it may be noted that the booklet was used as a final examination and those students with particularly low grades were quite motivated to do well. This effect could partially account for the low correlations obtained.

TABLE 5

Point Biserial (on a per question basis)

Question	Pt. Biserial	Question	Pt. Biserial	Question	Pt. Biserial
1	.2961	9	.2443	17	.2109
2	.2420	10	-.0039	18	.3540
3	.0100	11	.0120	19	.5981
4	.3980	12	.3190	20	.3961
5	.4900	13	.0084	21	.3340
6	.2949	14	-.0163	22	.0709
7	.7558	15	.2750	23	.3706
8	.1475	16	.3269	24	.0107
				25	.0130

Conclusion

Inspection of the empirical data indicate that students with a working knowledge of psychiatric nosology do indeed arrive at the same diagnoses as that of "Clinic". In addition, the data indicated that the clues are rank-ordered from least to most revealing as had been previously assumed. This empirical evidence has been given to support both assumptions contained in the hypothesis. However, it is difficult to draw any complete conclusions based upon a highly selective sample of subjects. With the empirical groundwork laid, "Clinic" may develop into an interesting, reliable, and useful educational tool.

APPENDIX I

CASE 1

SCHIZOPHRENIC REACTION, CATATONIC TYPE

This case involves a 35-year old male business executive who has been quite successful and has a very nice home in the suburbs of beautiful Bowling Green, and he has a lovely wife and two children who are in grade school. He has had no prior history of pschological disorder until the present problem arose. He has, however, over the past few months seemed to become increasingly moody and irritable; and has spent more and more time working alone in his office. Last week, for no apparent reason, he suddenly tried to strangle his secretary. Other people in the office succeeded in stopping him, but it took five men to do so. For this reason, the police were called and they have referred him to you for diagnosis.

This man has been noted by some of his close friends to be increasingly difficult to understand in a conversation. His ideas seem somehow difficult to follow, and he occasionally says some pretty bizarre things.

The patient has been showing some signs of a disturbed life for some time (a few weeks). Since he has lost his appetite, he seldom feels like eating, he spends increasing amounts of time just staring off in space, and he has begun to show a "reverse sleep cycle". (A reverse sleep cycle means that he has begun to sleep during the day and stay up most or all of the night.)

Your patient was very quiet during your interview with him. He sat stiffly in his chair, often seeming not to hear your questions or comments. You noticed that he held his hands rather oddly on his leg--palms up; and when you asked him about this, he simple seemed to ignore your question. His speech seemed slow and somewhat labored, as well; and he paused for several seconds before responding to your question. In addition, he reported no recollection of the incident with his secretary and was mildly troubled by the thought that he was seeing you at the clinic.

By way of summary of your observations of this patient, you've decided that this patient is characterized by a thought disorder, prominent motoric symptoms such as the changes in his speech patterns and the "posturing" which he showed during the interview, and by at least one outburst of uncontrolled and violent behavior. He also shows considerable autism in the clinic, spending considerable time in private fantasy.

CASE 2

PSYCHONEUROTIC DISORDER, CONVERSION REACTION

This case involves Helen, a 25-year old student. She has had no history of illness. Six months ago Helen met Bill, a graduate student and considered a real swinger by those who know him (and a lot who didn't know him). Three days ago, Helen fell down a flight of stairs and her right arm was paralyzed. She was admitted to you this morning.

Upon admission you were informed that Helen had no prior record of any psychological or physical problems. Upon preliminary questioning, Helen seemed quite pleasant, but further examination revealed her to be hesitant to discuss Bill and when asked about her schoolwork, evaded the questioning by saying she felt rather ill and asking to leave.

Upon further investigation you find that Helen, a normally very bright student has been doing very poorly in several of her courses, and needs at least a three-point this quarter to get to graduate school. Further investigation also reveals Helen's accident occurred three days prior to finals and by some strange coincidence she is also right handed.

When your investigation is complete you find that Helen was a fine student making excellent grades until she met Bill. After that her grades went downhill. Also if her finals are not taken she may make them up if she has a legal excuse. Today you get her medical report and it is no real surprise to find that she is find and there is absolutely nothing wrong with her.

CASE 3

PSYCHONEUROTIC DISORDER, PHOBIC REACTION

This case involves Bill, a sophomore at Bowling Green State University. Bill is a good student with above average grades and has a lot of friends. He has no previous history of any psychological problems. Last week, Bill was involved in a rather serious accident. Although Bill was unhurt, he was badly shaken up. Since that time, however, Bill's mood has changed considerably. He has become rather irritable. Lately he has become so nervous and upset that he has decided to see you.

Upon interviewing Bill, you find that the main reason he seems upset is because he becomes very anxious when he observes or talks of bicycles. Bill seems fairly sure that he will be hit by a cyclist as they ride by him and becomes very anxious when a cyclist approaches him. He suffers anxiety when he sees one go by or even when he thinks of bicycles.

Upon further investigation, you find that the accident that Bill was involved in was caused when he swerved off the road to keep from hitting an oncoming motorcyclist that was approaching him on the wrong side of the road.

When your investigation in complete, you conclude that Bill's anxiety was caused by his near miss of the oncoming motorcyclist and that this anxiety was generalized to oncoming bicyclists.

CASE 4

MANIC-DEPRESSIVE PSYCHOSIS, CYCLIC TYPE

This case involves George and Martha M., a married couple of three years. George is a high pressure salesman and works for a big firm that lately has started laying off top executives. George finds out that he has a fifty-fifty chance of being laid off even though he is one of the most lively, active, and friendly salesman on the staff. Last Saturday, George and Martha went to a party. At a party, George has always been referred to as the "life of the party". He laughs, jokes, and talks loudly. Lately, however, Martha has noticed that George has become more and more unruly at a party. George doesn't drink at all, but still his loudness continued. At this last party, George became obnoxious and loud until both were asked to leave. Martha has noticed George becoming more and more loud around the house. Also, in an effort to retain his job, George has become more and more aggressive in his sales pitch until he becomes almost unbearable. Martha has been so upset over George's behavior change that she has decided to have George see you.

Martha, although she has informed you of George's previous behavior, is unsuccessful in talking George into seeing you. Finally after several months of hounding, George agrees to see you just so that Martha will stop bothering him.. When George enters your office you find quite a different person than you expected. George just walks in and slumps down in a chair. He tells you that all he does is work, work, work and seems to have no time to "live". As he sits there, he complains of insomnia, general body discomforts and his inability to eat his wife's cooking. All these things and much more George complains about in a dull sullen voice.

After George's visit he doesn't return for quite a long interval. When he does, it is by the recommendation of the authorities. This time, you encounter some real surprises. When he enters your reception room, you hear so much noise that you must investigate. You find George flirting with your secretary and being very rude and boisterous. Upon getting George into your office, you find him to be extremely excited and loud. He shouts about how he was fired from his job and he'll probably starve, but as long as he remains "invulnerable" he won't need to eat. George then grabs some of your books and throws them on the floor. He then starts running around your office shouting so loud you must call for assistance, and have George committed.

In the hospital, George immediately became the ward clown. He ran up and down the hallways yelling, joking, laughing, and making a nuisance of himself. He fluctuated rapidly from being angry to being gay or occasionally violent.

This type of behavior was displayed for a time. After being in the hospital for some time, you've noticed some definite changes in George's mood. He has become very sullen and only sits in his room for hours and stares out his window. He is convinced that his body is falling apart and complains constantly of being ill for no apparent reason.

For several rather short intervals, George has been fluctuating between moods. In one interval, he becomes so loud and violent he must be supressed. In conversation, he moves from one subject to another so rapidly, he is hard to follow. At the next interval, he becomes witndrawn and inactive. There seems to be no relation between the duration of the attack and the normal intervals. However, you note that George seems to suffer from more attacks of sullenness than of elation. At the present time George has experienced a very long interval of sullenness. He suffers from horrible hallucinations and has to be bathed and fed. You conclude that the basis for this behavior stems from a reaction to anxiety caused by pressures exerted from George's job, his wife, and his home life. Finally, you are unable to examine George any further because he has become completely psychotic. You conclude that George suffers from "circular psychosis".

CASE 5

PERSONALITY DISORDER, DYSSOCIAL REACTION

Bobby is a young man aged 14. He has been brought to you because he has been caught shoplifting. He as caught stealing from the same store three times. The first time, he was warned; the second time, he was punished by spending three days in a home for boys; and the third time, the authorities have concluded that Bobby is "sick" and needs your attention.

When Bobby enters your office, you spend several minutes talking to him. He seems like a rather pleasant boy. After that, you administer to Bobby a battery of personality and intelligence tests. The next several visits you continue testing for intelligence, personality, and aptitude. Your results show that Bobby's I.Q. is 105, and he has no specific personality problems. This leads you to conclude that Bobby is within normal limits in terms of his test responses and has no intrapsychic defects.

Upon investigating further, you find that Bobby comes from a broken home. His mother left him soon after he was born, and he has been raised by his father. Also, Bobby and his father live in a very poor section of town and are barely able to make ends meet. You went to talk to Bobby's father but when you arrived at his house you found that Bobby's father was arrested last week and is now in jail. Oh, yes, you also find out that Bobby's father was arrested for stealing.

Puzzled by how Bobby's father could be in jail and how he could feed and clothe himself, you start investigating his background. You found that since Bobby had so little love in the home, he had turned to people outside the home for sources of reinforcement. For these several years, you find that Bobby's "friends" have been a group called the "avengers". This group replicates a modern day Robin Hood and his merry men whose sole purpose is to "steal from the rich, and give to the poor". To accomplish this, the group steals from stores, then sells the "hot" merchandise and uses the money to supplement their own family incomes as eachmmember of the group is extremely poor.

Upon completing your investigation, you reached some definite conclusions. First of all, Bobby is normal in the sense that his behavior isn't "sick", but rather it is illegal. Second, Bobby's behavior is learned and the reinforcement for this deviant behavior stems from the model provided byhis father, his peer group providing social and peer reinforcement, and as a result of these two things, the status, meaning, and values placed on considered "deviant" and illegal by the authorities. You conclude that Bobby will continue his learned behavior patterns as long as his behavior is not

extinquished for the "deviant" social mode and not given an opportunity to emit and be reinforced for socially appropriate behavior.

CASE 6

SCHIZOPHRENIC REACTION, PARANOID TYPE

This case involves Cindy M., a graduate student in English. She spends most of her time alone reading or meditating. Several years ago, Cindy became involved with a group that is interested in communication between the living and the dead. Within the last year, Cindy has become more and more involved with this group. As a result, her grades and schoolwork have become progressively worse, much to the alarm of her husband, Jan. Last week, Jan came to see you and described how Cindy had grown progressively worse within the last year, becoming more and more involved with her group. She now spends a major portion of the day talking to seemingly no one. When confronted with the problem, Jan reports Cindy has become increasingly hostile and reluctant to talk about it. Now, when Jan tries to show Cindy the logic in the situation or even mentions anything about the problem, she becomes violent and throws things. As a result of this, Jan has decided that Cindy should see you.

When Cindy enters your office, you find a friendly, alert, and intellectually responsive person. When questioned about her ability to talk to the dead, Cindy replies that she has "proof". Her "proof" it turns out is rather distorted bits of information and quotes taken from authors who acclaim to the possibility of communication between the living and the dead. Although some is factual, Cindy describes the information as having been written about her. She appears to be distorting to buttress her belief structure. Not only is Cindy convinced she has the power to "talk" to the dead, but when she visits you, you find that Jan never mentioned her ability to "see" the dead also. Cindy seems convinced that these visions are real, and she feels that she has been gifted with these unusual powers. When you pursue the subject still further, however, Cindy is angered at this close questioning and you are forced to end her visit.

Cindy has been visiting you on a weekly basis for several months now. Some rather definite behavior patterns seem to exist. Cindy, when not involved with material relevant to her beliefs, seems often quite friendly. However, when she is involved in any way with her unusual beliefs, she usually responds with anger or aggression. Cindy especially appears to become angry whenever you question her too closely. Cindy's visions have appeared more frequent, and her speech patterns are beginning to become broken and confused. Cindy talks of one subject then seems to leave "gap" in the conversation, then returns to the same subject. Cindy tells you that people who are trying to get her to study and stop "communicating" are persecuting her because they are jealous due to the fact that they lack her powers. Cindy continues to provide you

with "proof" that she does possess these powers, but as her proof builds, you notice that it becomes more and more unrelated to the subjects that the distortions Cindy makes so that the data reinforces her beliefs are so "far out" as to be bizarre.

Cindy's visits continue, but her hallucinations continue to increase along with her belief in supersensory powers. Cindy seems sure now that she can "communicate" with any person who has died. Your conclusion is that Cindy suffers from a thought disorder and that the thought disorder has been the basis for her delusions. Your final recommendation is for Cindy to be placed in a mental hospital until her thought disorder can be removed.

CASE 7

PSYCHONEUROTIC REACTION, OBSESSIVE-COMPULSIVE REACTION

This case involves Oscar T., a young business executive who has been sent to see you by his wife, Ruth. Ruth has informed you that Oscar's behavior, particularly since his big promotion last year, has begun to cause her some alarm. She reports that Oscar, upon leaving home, has been occasionally coming back to "make sure" he turned off his electric razor, or the shower, or any one of a dozen or more things. Ruth said that at first she was unconcerned over Oscar's behavior, but within the last few months, Oscar has progressively increased his "making sure" in the same day. This rather alarming behavior has upset Ruth somewhat, so she has decided that Oscar should see you.

When Oscar enters your office, he greets you with an air of irritability, complaining about his wife and her "meddlesome ways". After several minutes of preliminary questioning, Oscar (whose eyes have been almost constantly on the clock) suddenly announces that he has to leave. When asked why, Oscar tells you because he thinks he left the water running at home. You suggest to Oscar that he call his wife at home and ask her to check. When confronted with this idea, Oscar's behavior suddenly changes. He jumps up and begins pacing to and fro in your office kicking your rug each time he passes over it. After several minutes of this activity, Oscar tells you that it probably would be better to just call his wife. With that, he sits down in a chair and talks in a much friendlier and more relaxed manner than when he arrived.

Your interest in Oscar leads you to do some outside "detective work" on your own. Your first stop is Oscar's office. You're considerably impressed by the tremendous activity that occurs all around you and soon learn that Oscar's responsibility has increased tremendously since his promotion. His secretary, however, has also noticed a pattern of rather changed behavior. She tells you that he spends a goodly portion of the business day observing and cursing the clock. He says that clocks are a "menace" and should never have been made. Also she tells you upon placing checks or bills within envelopes, he will quite often reopen the same envelope several times to "make sure" he has signed the check or correctly filled out the bill. Finally, his secretary states that after a particularly bad day at the office, she can usually observe Oscar touching every car in front of his in the parking lot. This wouldn't appear unusual, she states, except that there are sometimes a hundred cars, and Oscar only touches the left windshield wiper of each one.

Oscar has been to see you for several months now. His pattern of behavior has not deviated significantly from the

reports given by his wife or his secretary or your observations. Whenever Oscar feels particularly nervous or irritable, he emits one of his "strange acts" (as he calls them) whereupon he feels considerably better and more relaxed. When questioned as to why he emits these particular behaviors, Oscar says he cannot explain why; he only knows that he must do them. Oscar tells you that something completely outside him seems to be controlling his behavior. An example of this "alien temptation" is the occasional idea or urge to kill someone. This horrifies Oscar, because the person usually connected with these thoughts or urges is characteristically a close and beloved relative.

Although Oscar is still continuing to see you, you have reached several rather definite conclusions concerning his problem. Oscar, you conclude, suffers from intermittent anxiety reactions which lead to irrepressible tendencies to do, say, or think something in a particular way. If Oscar indulges in his particular thoughts or acts, he is provided with relief from anxiety and is also providing gratification. If not, the result is intolerable anxiety. Finally, Oscar's behavior is a reaction to a social situation, and the most direct form of treatment is the teaching of new, competing responses so that the old responses are not in effect any longer.

CASE 8

SCHIZOPHRENIC REACTION, HEBEPHRENIC TYPE

This case involves Patrick H., an undergraduate student at Bowling Green State University. Pat has come to see you at the request of his girlfriend, Sue. Sue has previously told you that although Pat has always been a bit "flighty" and occasionally tending to joke in rather inappropriate ways, he has always seemed otherwise "normal". Within the last few weeks, however, Sue reports some definite changes have occurred in Pat's behavior. She reports that Pat's mood has become increasingly depressed. She states that he usually responds with apathy and complete detachment. While acting in this depressed state, Sue reports Pat will occasionally burst forth with an apparently humorous laugh to a seemingly inappropriate situation. This "dilapidation of personality"--as she refers to it--has caused Sue such great alarm that she has decided to have Pat see you.

When Pat enters your office, you encounter a rather sloppily dressed but seemingly friendly person. Although it has been only three weeks since you talked with Sue, you find that Pat appears to have a definite "dilapidation of personality" as Sue stated. Although you try to conduct the interview with seriousness and a degree of formality, Pat responds with grimacing and giggling to otherwise emotionally serious topics. Pat has the belief that his body is rotting and that several of his organs are missing. These beliefs are held in a rather unsystematized fashion, and Pat appears to totally disregard your logic or arguments of fact. Not only is Pat unaffected by all these beliefs, he thinks they are outrageously funny.

Pat has experienced considerable personality disintegration. His moods seem to change constantly. He is silly, absurd, and irritable; he laughs, cries and his mood changes all the time. Whatever the mood, however, it seems unrelated to his surroundings or the situation he is in. Pat's speech has become incoherent and sometimes truely bizarre. He talks for several sentences, then seems to leave a "gap" then returns to the same topic. Pat's hallucinations have seemed to increase. Although his hallucinations center around some rather horrible ideas, Pat seems to respond to them with gaiety and laughter. As his hallucinations and delusions increase, you notice that they too, like his personality, are becoming rather childlike and "regressive". Finally, you are unable to effectively communicate with Pat any further, and must have him committed to a hospital.

Your inability to communicate with Pat has occurred. you conclude, because he has become completely psychotic. Pat's hallucinations, delusions, changeable moods, and broken speech

patterns have occurred because Pat suffers from a thought disorder. Your final recommendation is that Pat remain in the hospital until this thought disorder can be removed.

CASE 9

TRANSIENT SITUATIONAL PERSONALITY DISORDER
ADULT SITUATIONAL REACTION

This case involves Ray S., a foreigner who has been brought to you by school officials. Ray is a young boy of twenty and has just recently arrived in the United States. His scholastic achievements have been so poor, however, that Ray had to be placed at a rather elementary level to learn the "basics". School officials, however, report that Ray will not respond in class, but sits all day in a dull, sullen manner. When asked questions, Ray will eagerly listen, then usually frown and sink back into a dull, sullen mood. The school officials have labeled his behavior as "depression" and sent Ray to see you.

When Ray enters your office, you encounter a rather bright friendly person. Ray doesn't seem to be able to understand English very well, but he is very talkative so you can understand him reasonably well. You are surprised at the person you encounter, expecting a "depressed" person. When Ray is questioned about school, he tactfully avoids the subject, implying he doesn't like that situation. A few more visits lead you to conclude Ray is an intellectually responsive person, but his "depression" in school continues. After several visits, you administer a battery of tests. Ray, you conclude not only doesn't suffer from "depressions" as previously diagnosed, but that from his test results, he doesn't seem to suffer from any apparent underlying personlity disturbance.

Your interest in Ray has lead you to do some background work on him. You learn that education as we know it is an entirely new and novel experience to Ray. Homework and responding to teachers are all foreign to him since he had no formal educational experience in his country. This means Ray has been put in a situation different from any that he has ever experienced before. Thus, the fact of the strangeness of this new situation to Ray has led you to conclude that Ray's problem is one of "cultural shock".

Ray has not been taught how to deal with the present situation in school, in other words, he doesn't know what is wanted of him or how to respond. This has created an "overwhelming situation" to Ray. Few, if any responses that Ray could make in school were likely to be satisfying. As such, the person's adjustive capacity is one side of the situation, and an abrupt change reinforcing contingencies is the other. Not knowing how to act, Ray has chosen not to react at all, which led school officials to label his behavior as "depressed".

Ray's abrupt change in behavior once he is out of the school situation has led you to conclude that his problem is "situational" and that treatment will merely involve teaching Ray how and when to react in the school environment which has represented a situation that is new and foreign to him.

CASE 10

PSYCHONEUROTIC REACTION, ANXIETY REACTION

This case involves Fred J., a young businessman who has been sent to see you by his medical doctor. Fred complained to his doctor of feelings of dizziness and faintness as well as feelings of being shocked. Fred said there was no warning before these "attacks" occurred. Worried by these attacks, Fred consulted his doctor. The doctor, after running some preliminary tests, concluded that Fred's problem was not physical, but was associated with somatic symptomatology. He has therefore recommended that Fred should come to see you.

When Fred enters your office, you encounter a friendly sort of person. For the first several visits, you ask a number of questions but do not see any signs of Fred's problem. However, on the fourth visit, you begin to explore Fred's past and while doing so, uncover a few interesting incidents. Among them is a drowning that almost happened to Fred several years ago. Fred tells you that since then he has had a morbid fear of swimming. As he describes all of this, you notice a change that begins to occur in Fred as you suddenly realize that he is having one of his attacks.

Fred is having an attack. You first notice that his face appears flushed. Closer examination reveals that his eyes have become dialated. His breathing appears to become rather shallow. Fred tells you that he feels extremely dizzy and that he may faint. He appears to tremble as he looks anxiously around your office. He tells you that he must not talk of his accident any more and that he must get out into the fresh air so he can "breathe" again. With that, he grabs his coat and literally runs out of your office.

Fred tells you that the number of attacks seem to be increasing. You notice that this must be so, as his number of attacks in your office is also increasing. On one visit, as Fred was talking, it started to rain outside and Fred experienced one of his attacks. Still another day, while in your office, Fred had an attack while watching a man turn on a hose. When questioned about these incidents, Fred later admitted that anything that reminds him of swimming or water or the lake in which he almost drowned will serve as a stimulus for one of his attacks.

Your investigation is complete, and you conclude that Fred suffers from a complex phobic response (fear of drowning) that has generalized so that Fred has developed phobic responses to many stimuli. Your final recommendation is systematic desensitization to be used conjointly for heirarchies of emitting new responses as well as visualizing what would happen with increasing assertion.

CASE 11

PSYCHONEUROTIC DISORDER, PHOBIC REACTION

Elaine P., a young saleswoman, has been to see you for several weeks now. You have determined her problem and are attempting to remove her disorder with one of the several techniques available to you. The technique you use is a relatively common one, and approximately the same procedure is used each time that Elaine lays down on a couch in your office. The shades are drawn and the lights are turned down low. Having previously established a basic trust in you from earlier sessions, Elaine is now taught how to relax her muscles. Having mastered the "relaxing" stage, you next ask her to visualize general mental pictures.

Your theory in the treatment given is to use mental pictures and scenes that Elaine evokes to create visual situations in a heirarchy of increasing anxiousness. The visual scenes become increasingly more difficult and if at any time Elaine shows any signs of tenseness she signals you and you return to the relaxing stage after directing her to stop the image. The process is called "systematic desensitization".

Unfortunately your first treatment, one of systematic desensitization, does not work. It fails mainly because Elaine is unable to conceptually visualize the various mental images she is asked to create, therefore another line of attack is needed as you utilize another technique. This treatment is a great deal simpler than your first attempt. Your first session involving this type of treatment is one in which you have Elaine first feel the textures of different materials, working from velvet up to a glove made of rabbits fur. In succeeding sessions you next have Elaine look at pictures of cats and stroke toy kittens. Following the end of each session you have her take these objects home and place them around her house. This continues for several more sessions and finally you give her a baby kitten which she will raise to a full grown cat.

This type of treatment is called "in vivo desensitization". Elaine was gradually helped to approach cats by first using materials and pictures more and more closely related to cats and finally presenting a live cat in the form of a gift. As in systematic desensitization if at any time she was tense, she remained at that "stage" in her therapy until she overcame her anxiety. You find that this procedure is effective in curing Elaine's problem.

Elaine was bitten by a very mean cat several years ago. Since then she has experienced extreme anxiety and discomfort in the presence of any cats and even in the presence of some things that remind her of cats. Elaine attempted to control

tnis anxiety by avoiding cats or anything else she felt was related to or associated with cats.

CASE 12

SCHIZOPHRENIC REACTION, CHRONIC UNDIFFERENTIATED TYPE

This case involves Steve S., a construction worker who has been committed to the state mental hospital under your care. Your job is to observe and interpret his actions and from that, deduce his problem. Steve has been to see a local doctor now for several years. The doctor (having made only minimal progress with him) has recommended him, along with the advise of the authorities, to your hospital. It seems that Steve has lately committed several bizarre acts. The neighbors noticed that his actions have been most unusual. His latest act involved a cat that he killed. He then tied it to the antenna of his car and drove around town displaying the mutilated cat. This shocking bit of behavior in Steve's rather conservative community has led the authorities along with his former doctor to have him sent to you.

You question Steve on a variety of subjects, but he seems to pay no attention to you. The mechanisms responsible for the maintenance of attention in the normal individual seem clearly to be disrupted in Steve. Although Steve will not answer any of your questions, he does seem to respond to "other" stimuli. The stimuli that he responds to however is not considered very relevant or significant to you.

Your first conclusion is that because Steve no longer attends to the discriminative stimuli (acquired) that reinforces the people in his core culture, the influence of this group is reduced and the likelihood that he will become a rule breaker is increased. This theory may well explain his rather bizarre behavior.

Steve appears to be responding to "internal" stimuli and this explains why he will not respond. It seems that his perception of the experimenters stimuli is "interferred with" by his own idiosyncratic autistic type of stimuli. As such, he appears to respond to stimuli you consider irrelevant. Further, because his behavior has been extinguished for discriminative stimuli, his response to other persons' understanding and caring for him is also extinguished.

Steve also appears to have automatic obedience or automatic negativism in relation to what is asked of him. By this it is meant he will do everything that is asked of him or else he will give only one response (such as laughing) to what is a asked of him. Formulating his behavior, you conclude that at this time he will do everything that is asked of him because if he is making minimal discriminations about his environment, Steve finds it easiest to do what is told of him. On the other hand, Steve may sometimes respond with a ready made response because he finds that the bothersome process of attending to and decoding what is said to him, which he usually hasn't had great success at, can be short-circuited if he gives a singular response.

CASE 13

PERSONALITY DISORDER, SEXUAL DEVIATION

You have been sent to see Larry B., a young store owner in a small town in the Midwest on recommendation of his neighbors and the authorities. Larry is a friendly and generous person. He has never been in trouble with the law before. He has lived in the town for a year now and was noted "citizen of the year" by the townspeople. However, Larry also raises guinea pigs and three weeks ago a neighbor saw Larry take a guinea pig into the yard and with a club brutally beat the pig to death then walk back into the house. The neighbor, being quite shocked, had several other neighbors witness the exact same thing approximately a week later. Then last week, the neighbors had the local police look on again as Larry completed the same act a week later. The neighbors and the police have contacted you; and you, in turn, have agreed to go and talk to Larry.

Larry is one of the nicest people you've ever met, and when asked why he kills guinea pigs, he tells you he doesn't know why. He expresses a desire to find out and agrees to come in and see you on a twice a week basis. He comes in and over a two month period you give him a battery of intelligence and projective tests. You delve into his background as well as ask him hundreds of questions. During all of this, Larry continues to kill the guinea pigs, although he does it now at night and in his house. After two months of extensive testing, you conclude that Larry displays behavioral difficulty only in one area (killing the guinea pigs) otherwise he is completely normal in every way.

After two months of therapy, you know Larry to be a friendly sort of person. He is however rather conservative and extremely hesitant to talk about his sex life. Larry does not go out with many girls, he prefers to stay at home alone. One day while in your office, Larry tells you that the previous night he killed another guinea pig. When asked exactly what he did following the killing, Larry tells you that he did the usual things; watched TV, played cards, and had his usual nightcap before going to bed. When asked if he did anything else at all, he reluctantly admitted to masturbating also. When asked how often this occurs, he answered you about once a week.

Larry, it seems, has been masturbating following every killing of a guinea pig. It appears that Larry has conditioned himself to associate the killing of a guinea pig with the pleasurable behavior of masturbation. As such, if there is a pleasurable stimulus, any behavior or stimulus immediately preceeding or continguously occuring may come to have sexual meaning. In Larry's case, the sadistic killing of a guinea pig heightened his desire thus allowing him to enjoy his masturbating much more. Your recommendation for treatment in-

volves extinguishing the desire to kill the guinea pig as a stimulus to become sexually aroused and to put in its place a more socially acceptable competing stimulus, or merely to extinguish the guinea pig killing behavior without any type of competing stimulus in its place.

CASE 14

TRANSIENT SITUATIONAL PERSONALITY DISORDER
ADULT SITUATIONAL REACTION

You are a psychologist and are isolated from your patient John K., a 23-year old bachelor, as you observe him in a small room through a one-way mirror. Your job is to determine John's problem and to recommend a course of action. You have presented John with a specific stimuli, but instead of responding to it in a normal way, he appears to be acting a bit unusual. The behavior he resorts to the stimuli which seems rather self-defeating and incomprehensible to you, the "objective" observer. The situation at hand appears to be one in which John will attempt any possible solution.

In presenting the stimulus to John a pattern begins to appear. It seems that the stimulus presented to John is an adversive one for him. Further, within this adversive situation no satisfactory behavior seems possible. As such, the typical cooperation needed between John and the stimulus breaks down and flight appears to be his only adaptive response. This behavior you label as panic.

Panic is apparently John's behavioral response to this stimulus situation. John's panic response is based on the fact that stimulus contingencies that typically and previously controlled his behavior are no longer effective, thus leading to flight. Flight is a low probability response on John's "repertoire" of behavioral responses, but it's simply the best behavior available under the circumstances. The key to John's problem appears to be understanding why he panics in this situation only and otherwise appears completely normal in all other behavioral aspects.

It seems that the stimulus that is presented to John is totally new and novel to him. As such, John is being asked to emit behaviors at which he is unskilled at. John is unable to cope with the situation and thus labels both the situation and his own behavior as disturbing. The act of labeling thus serves as a further aversive stimulus and panic and flight appears to be the only solution possible. You also notice that after John takes flight, and leaves the adversive situation (having been presented the stimulus) he becomes better quite rapidly and usually requires little or no treatment.

You conclude that John's behavior represents a response to a situation that to him is "overwhelming". His adjustive capacity to the situation (the stimulus) is such that his is not emitting a response that is satisfactory to himself or others. A recession of symptoms (panic behavior) occurs when the situational stress diminishes. Your final recommendation is to have John taught socially acceptable behavioral responses to deal with the formally unencountered stimulus situation.

CASE 15

PARANOID REACTION, PARANOID STATE

Chuck A., has been recommended to you by the hospital staff. Your immediate therapeutic goal is to reduce Chuck's anxiety and to re-establish genuine communication. To accomplish this, you are told to deal with Chuck in an interested, attentive and relaxed attitude initially, with a certain amount of detachment and suspended judgment. In other words, to appear "neutral".

It seems that Chuck's anxiety is caused by his behavior which has been learned as a response to situations which have extinguished appropriate responses and shaped him towards his target behavior (his problem). In other words, Chuck's problem seems to be one of information and its evaluation. His basic problem, therefore, is one of being particularly sensitive to stimuli that others label as threatening.

When Chuck was first admitted, he was diagnosed as being schizophrenic. This was because of his basic incorrect interpretations of external reality. Upon closer examination, however, it was discovered that his intelligence and personality were well preserved. Also, few of the manifestations of the traditional schizophrenic were present. Thus, the label of schizophrenic was dropped. Yet, Chuck's behavior was still labeled psychotic.

Chuck has been labeled psychotic because of his inappropriate belief system. Chuck was found to be socially appropriate in all areas of life except one. In this one area, he holds beliefs differing from the remainder of the population. The beliefs are based on evidence that seems inadequate, contradictory, and invalid to both you and any other normal person.

Chuck's false beliefs and incorrect interpretations of external reality are manifested in delusions. Although Chuck suffers from no hallucinations, it appears that he does suffer from these persistent delusions in the form of persecution or grandure. Your recommendation is to withdraw reinforcement for the socially disturbing operants (delusions) and to shape alternative, socially appropriate responses to his false belief system (his delusions).

CASE 16

PSYCHONEUROTIC DISORDER, CONVERSION REACTION

This case involves Bonnie Y., a secretary for a growning firm in the city. Bonnie has been raised by her grandparents as her parents were both killed when she was very young. Both grandparents suffer from sever cases of arthritis. Bonnie's entire family on both sides have had considerable history of arthritis. Although Bonnie is in her very early thirties, reports of arthritic pain began when she was still in college. The arthritic pain has increased so much within the last two years, that she suffers from occasional temporary paralysis in both hands. You have been assigned to this case.

Bonnie enters your office and seems to be a very bright and responsive person. Because of her acute arthritis, she tells you that it was necessary for her to quit her job. She tells you that she had wanted to stay on the job, but because of her pain she had become so useless in the office that she was asked to leave. While relating this, Bonnie does not seem greatly alarmed by her arthritis or even her occasional temporary paralysis. She seems instead to have an attitude of patient fore-bearing. This acceptance of "fate" you label as "la belle indifference".

On Thursday, Bonnie enters your lab to run an experiment. When told she will be asked to "simulate" the same conditions as when on her job, she complains by telling you she has been particularly bothered by her arthritis lately. You tell her of a new treatment for arthritis that can actually cure its effects. Bonnie is placed in a small room where she is to receive her treatment. While waiting for her treatment, she overhears two nurses talking outside of the room, talking about the amazing effects of the treatment and how it has never failed in its testing yet. You come in then and inject Bonnie with the special treatment. Following a 15 minute "waiting" period, she is ushered into the small room set up like an office. When asked to perform various office skills, Bonnie responds with amazing skill and accuracy to any task that is asked of her. When questioned later about how she feels, she reports her hands felt "like new again" and that the drug given her was truely amazing. The drug given her was a placebo.

A little background work gives you some insight into Bonnie's character. It seems that her arthritis attacks began to appear in college during one final exam week when she was unprepared. She was dismissed from taking the exam. Since that time, whenever the "pressure" became too great, Bonnie would begin to complain of arthritis problems. The paralysis of her hands was a result of increased pressure from her job as well as the increasing demand from her healthfailing

grandparents. An arthritic attack had provided her with a convenient "out" and was available to her any time the pressure became too great. Her arthritis behavior was a learned role that she was able to adopt from her grandparents actual problems with arthritis.

You conclude that Bonnie's problem is one of role enactment that has been modeled and shaped by her grandparents and that is maintained by reinforcement (not having to do the difficult tasks). Her chief characteristic problem is anxiety which becomes unconsciously and automatically controlled by utilization of s psychological defense mechanism which controls her arthritis attacks. Disturbances of any activity (such as pain) whether motor or a poport of sensory experience is related to Bonnie's problem. This behavior you label as hysteria.

CASE 17

PSYCHONEUROTIC DISORDER, OBSESSIVE-COMPULSIVE REACTION

Meg C., a student of Bowling Green State University has been sent to you by the hospital staff. It has been predetermined that the psychological situation in which the behavior is emitted will be a better focus for treatment than her behavior per se., and that treatment will involve the teaching of new, competing responses to the behavioral responses she is now emitting. Your job as a staff psychologist is to determine the basis for Meg's behavior and recommendation of course of action.

With only the preceding to go on, your first job is to determine Meg's specific behavior that is a problem and under what conditions the behavior will occur. You isolate Meg in a room and she is asked to perform more quickly, you notice a change that begins to occur in Meg. She appears to become more and more uncomfortable. This feeling appears to grow as she begins to look all around the room. It appears that she suffers from an abnormal amount of anxiety, and you are thus led to conclude that her problem is related to anxiety.

The experiment was stopped before Meg was allowed to go any further, but still her anxiety seemed to continue. When asked why she was so excited, she gave no response but asked you if she could use the restroom. You told her of course, and gave her directions. After reappearing from the restroom, Meg appears to be much more relaxed. In fact, you fail to discern any signs of anxiety. The following week, you again test Meg, this time in a slightly different manner but basically in the same situation as before. This time, however, a very curious thing occurs. During testing as before, the testing appears to develop at an unusual rate. It continues to the same point as before, but this time something happens. Meg has reached a point of very high anxiety when she accidently knocks over a bottle of ink on her hands. Since you have a small sink in the testing room, Meg rushes over and washes her hands thoroughly. After that, she walks back to her desk, sits down and resumes her tasks with no apparent sign of anxiety.

A pattern in Meg's behavior has seemed to appear. Whenever Meg appears to show signs of anxiety, she will excuse herself and go to the nearest sink to wash her hands. This "handwashing" behavior seems to be an anxiety release for Meg, and she will be acutely uncomfortable until she has emitted the act. Afterwards, she will appear very relaxed with no apparent signs of abnormal anxiety.

You conclude that with Meg's problem, anxiety is associated with the persistence of repetitive impulses to perform acts that even she herself considers unreasonable. Even through the act, Meg considers them unreasonable, she is compelled to carry them out--the rituals--so as to reduce the anxiety that makes her so uncomfortable. Treatment of teaching her new and competing responses to handle. Her anxiety is directly analogous to the treatment of phobias. This is because treatment of phobia may be used in the treatment of the type of behavior that Meg displays and visa versa. In other words, both reactions involve anxiety and are treatable by similar methods.

CASE 18

SCHIZOPHRENIC REACTION, CHILDHOOD TYPE

Billy B., a young schoolboy has been sent to see you by his parents. Billy's parents tell you that school officials have labeled Billy as being "mentally retarded". His parents argue that Billy is not retarded, using examples such as his seemingly active and intellectually responsive actions in his homelife activities. Although Billy's parents agree that Billy usually acts rather strange, spending hours talking to his "invisible friends", or spending time staring out the window while seemingly being totally unable to hear those around him, they are nevertheless so insistent that he is not mentally deficient, that you agree to see Billy.

Billy has been to see you for several sessions now. It is, however, looking more and more as if the school officials were indeed correct. Billy, it appears will not pay attention to anything you tell him. It were as if he could not hear you, yet his hearing tests very acute. Billy seems totally unresponsive to any stimuli that you present him. On the next several sessions, you begin running some experiments with Billy. Using shock therapy, you find that when the response serves to terminate the noxious physical stimuli (the shock) Billy's response improve a great deal. In fact, it appears that Billy's responses all appear to be similar to those of normals when shock treatment is used.

After several more shock treatments, your first conclusion about Billy's behavior seems definite. Billy's behavior it seems, has been extinguished for attention to social stimuli to which "normal" people respond. More simply, the operant of paying attention to cues that others attend to is no longer emitted. This lack of attention and concentration gives rise to the misleading impression that the patient is intellectually impaired, whereas he is actually intellectually inert. This, therefore, explains why school officials thought Billy was retarded.

Further signs of abnormal behavior seem to present a clearer picture of Billy's problem. Billy's "invisible friends" as he calls them, are actual visual hallucinations that Billy can "see". Also Billy's speech patterns appear to be a bit strange. Billy will say a few words then appear to leave a "gap" in the sentence then return back to it. This behavior is what first made Billy's teacher think he may have been retarded, and as this behavior increased, she notified the school officials. Billy's inability to hear others and his hours of staring into space seems to be a result of his responding to internal, idiosyncratic, autistic stimuli. Because of this his perception of his parents, the teacher's or the experimenter's stimuli is "interferred with", and as a result he does not respond.

You conclude that Billy suffers from a thought disorder and your final recommendation is that he be placed in a mental hospital until this thought disorder can be removed.

CASE 19

INVOLUTIONAL PSYCHOTIC REATION

Mae A., an aging woman in her forties has been sent to see you on recommendation by her husband as well as the authorities. Mae's husband, Bob, tells you that for several months now Mae has suffered from restlessness, insomnia, fatigability, and extreme irritability. Bob says she often complains of anorexia, weight loss and constipation. He reports that her mood will vary from pessimism to frank depression. Her depression was so profound, Bob tells you, that two weeks ago she attempted suicide. Because of her unusual behavior as well as a suicidal attempt Mae has been brought to you.

Several sessions with Mae seem to reveal some insight into her personality. Whereas she was pretty, pleasant, and sexually attractive, Mae now shows signs of increasing dissatisfaction and distress leading her to an increasing introversion. As Mae's depression seems to increase, so too, does her feelings of unworthiness, uncleanliness and of wickedness. As Mae continues to see you, she experiences increasingly vivid feelings of unreality. She tells you that her body feels as if it does not belong to her. Also, Mae appears to hold herself responsible for everything bad in the world. Mae claims she is "the cause of all ills of the world, for the death of trees and babies, and for changes in the weather". All this and much more Mae reports.

Each time Mae talks to you now she appears to be agitated, depressed, distraught, and tearful. Most prominent appear to be feelings of self-condemnation, inadequacy, and hopelessness. These symptoms usually blossom into a sever, agitated, delusional depression. With Mae's problem no more profound depression is seen psychiatrically. Because of the symptoms so closely resemble manic-psychosis or schizophrenia, you are forced to conclude that Mae's personality is definitely pre-psychotic.

Curious as to how Mae's problem started, you contact Bob; Bob tells you that Mae has always been a very friendly and open person, but has changed considerably in the past few months. Bob tells you that all of Mae's personality problems started shortly after she visited her doctor and was informed by him that she was starting menopause or the "change of life" as the doctor referred to it. Previous to this, Mae and her husband had very much wanted children but were unsuccessful at all attempts. Mae had many guilt feelings when she found out that it would now be impossible to ever have children.

You conclude that Mae's very common problem stems from the "change in life" that is occuring to her now. You suggest as treatment a utilization of combining glandular replacement therapy and re-educational therapy to let Mae know how to properly accept her change as something that should be accepted and understood, not rejected and associated with the guilt of disappointment in not having children for Bob. As such, Mae's problem has created a prepsychotic personality problem that was involuntarily created.

CASE 20

PSYCHONEUROTIC DISORDER, DISSOCIATIVE REACTION

Jan L., a student at Bowling Green State University, has been sent to see you. Jan, it seems, has always been a very good student being very socially active and having many friends. He has always been a rather quiet and shy individual not usually speaking unless spoken to. Last week, however, Jan was arrested for shoplifting in one of the local stores. When arrested, Jan put up such a fight that additional assistance had to be called for. At headquarters, Jan became markedly different and quieted down to his old easy-going self. His actions have so totally baffled the authorities that it has been decided that Jan should see you.

When Jan enters your office, you encounter the friendly easy-going person that Jan's friends describe. After some friendly conversation, you question Jan about the shoplifting incident. Jan tells you he had no control over himself at the time, but was under the influence of a man called George. As he talks on, you notice his speech and actions appear to be occasionally psychotic.

Several more sessions with Jan lead you to conclude that Jan is definitely not psychotic, but rather suffers from a neurotic disturbance. In Jan's case, the diffuse association appeared to be a bit psychotic, but he has behaved with relative appropriateness and has not manifested true psychotic symptoms. In Jan's case, then, you notice anxiety as his major problem. As therapy continues you also notice Jan's personality containing a great deal of repression.

Jan's problem, it appears, is anxiety created by repression. In Jan's case, the repressed impulses are desires to do something evil. As anxiety increased with Jan, he became no longer able to control his previously repressed impulses and thus acted on them by stealing and then causing a struggle. Jan tells you in subsequent sessions that George is the "evil man" within Jan that "makes" him do the evil things that he tries to repress. Jan relates to you other incidents that he remembers when George acted in a way Jan considered undesirable yet was unable to control.

You conclude that in Jan's case the repressed impulses that gave rise to the anxiety has been discharged by George, his "other" self. As inferred from George's behavior, Jan has developed twin-dependent personality systems and is not labeled psychotic because he has knowledge and recollection of the acts of George. Your final recommendation is to have the repressed impulses brought into the open and to thus alleviate the anxiety that Jan suffers from by showing him that the other "personality" represents impulses that are repressed and that strive for expression.

CASE 21

NO PATHOLOGY PRESENT

Masou K., a young man age 25, has come to the police station. His clothes torn and looking rather dirty and ragged. His manner appears to be very anxious and furtive. When asked why he is at the station, Masou explains to the police that he is hiding from "them". The police, however, feel Masou needs a different type of protection, and are forced to put him in custody. As Masou is taken away, he shouts something about this being a fine way to treat a king. Because of Masou's rather unusual behavior, the police have felt it necessary for Masou to see you.

When Masou enters your office, he is still dressed in the same dirty rags as when he entered the police station. However, you notice the clothes seem to be a very unusual type and as Masou passes by you notice that the material appears to be that of a foreign substance. Masou still conducts himself in quite a regal air as he sweeps into your office. He is still quite insistent that he is "king of his country". When asked why he is here, he responds by telling you it is to escape "them". When asked who "them" are, he says they are the ones who are out to get him as they are jealous because he is now a king. All this Masou tells you in a vague apprehensive way looking all around the office as he does so.

Masou's story does not change. Each time he sees you, the same story is closely repeated. The classic symptoms seem to be present persecutory and grandiose delusions. Your first conclusion, then, seems to be one of classifying Masou as suffering from a paranoid reaction. But you are quite unsettled by labeling his behavior as such and decide to do some detective work on your own.

Your detective work leads you outside your office. Masou has informed you that he comes from a small island in the Pacific called Isiac. Your research leads you to finding out that there is most definitely an island by that name. Not only this, but you learn that the island had been declared an independent country formany years and that the king, who had just recently died, had turned over the island to his son. Because the sone was so young, revolutionaries had tried to take over the country forcing the son to flee for safety. This was the last anyone had heard of the young king except that it was rumored he had fled to the United States having learned a great deal about the people and the language in his childhood. The name of the young king was one thing that hadn't been learned, but today your secretary learned of the king's name. It was the same as his father's--Masou.

Further investigation reveals that the revolutionaries had been quelled, and it was safe for Masou to return. Members of his royal cabinet are here today to pick him up. The police chief and you are at the airport to see him off and he bows deeply to both of you. Your final conclusion is that Masou suffers from none of your first conclusions, and his only problems appears to be of being slightly neurotic at all times.

CASE 22

PERSONALITY DISORDER, ANTISOCIAL REACTION

Your are a clinical psychologist (almost) and as part of your master's thesis, you are told you must correctly diagnose and recommend a proper course of action for Ron M., a person who has just been admitted. You are not allowed to see Ron, but must go solely on his personal history. Good luck--Ron is a person with above average intelligence. He seems to be aware of social amenities and to affirm to the moral code. Frequently he demonstrates superior intelligence and other assets and will succeed brilliantly for a while in work, in studies and in all human relations. But then he will repeatedly fail.

It is difficult to account for Ron's failures that seem to give themselves to impulses no more compelling than a trivial whim. However, effective Ron may show himself to be over a limited period, when given sufficient time he will always prove himself inadequate. This he seems to accept in a very passive way, being quite unconcerned about his unusual behavior. Being quite puzzled over all of this, you continue reading to discover specific histories of Ron's failures.

The first thing you notice, is that Ron is quite often known to commit aggressive antisocial acts. Ron's personal history illustrates this quite well. It seems that Ron has been arrested some seventy or eighty times. As a child, he continually skipped school yet neither punishment nor reasoning influenced his conduct. After having always been caught for petty thievery, or truancy or other antisocial acts, Ron would always seem to understand that he had done wrong and would solemnly agree never to repeat the errors that were causing him and his family so much sorrow. His stated resolutions reflected good judgment, insight, and the utmost candor. Despite this, his maladjustments continued.

Those who dealtwith Ron came, in time, to feel that such a continual pattern of misbehavior must differ profoundly from ordinarily motivated rebellions. After Ron was old enough to drive, his father bought him a new car in hopes that it would influence him favorably. Not long afterwards, while out driving he parked the new car, crossed the street, and took possession of a battered and inferior vehicle which he later abandoned in the country after a minor accident. Soon after this, Ron was apprehended by the police. Also, Ron developed the habit of leaving his parent's home at the onset of anywwhim. He expressed a strong natural affection for both parents and was most convincing when he spoke of being willing to do anything to avoid causing them sorrow or distress. Nevertheless, after saying he was going down to the

drugstore or perhaps to a movie he would sometimes not return and send no word to his parents until he was again in the hands of the authorities.

Ron appears to learn nothing important from experience, yet he is quite familiar with the correct ethical criteria. He claims allegiance to such criteria and can in words formulate excellent rules and plans for himself to follow. Yet, he does not seemto be simply lying, or at any rate to be quite aware that he is lying, or even to grasp emotionally the essence of what is falsehood. Ron expresses normal reactions (love, loyalty, gratitude, etc.) with most impressive appearance of sincerity and depth; but the emotional ties and the attitudes he claims fail to deter him from deeds that continually contradict his verbal "profession". Often the conceivable temptations that appear to underlie his failures and socially self-damaging deeds are extremely trivial, scarcely sufficient to prompt more than a whim if any positive impulse at all. Yet they evoke actions that cause the loss of fortune and the respect of friends, the destruction of family life, and repeatedly bring about the necessity of his confinement in jails and psychiatric institutions.

Well, the evidence is in, and your conclusion is finally made. You conclude that Ron suffers from a specific type of personality disorder and that it will take intensive psychotherapy to remove this personality disorder.

CASE 23

SCHIZOPHRENIC REACTION, PARANOID TYPE

An unmarried store clerk twenty-two years of age and named Robert H., was brought to your hospital in handcuffs by the police, who had been called because the patient's sudden explosion of violence in which he swore to settle accounts with a neighbor woman. His parents dated the onset of the illness to a period, two years earlier, when their son became suddenly quite busy and seclusive. While in high school, Bob bragged of the great things he was to do after college. Financial setbacks, however, forced Bob out of the running and forced him to get a job.

Bob's first reaction to this disruption was to adjust to a new life and new friends. After a few months, however, he joined a church and took an active part. At home he began talking a great deal about social betterment and the spiritual improvement of mankind. His speech became tiresome and repetitious to the family who reacted in a bored way. Bob reacted to this with an angry silence and an unexplained preoccupation that led up to his climatic outburst. Soon after this preoccupation began, Bob gave up his church activities and friends and devoted almost all his apre time to solitary reading. He spent hours also working in a small workshop downstairs. He worked fitfully at his bench in the basement, making wooden models of houses and other buildings which were not easy to identify. When he was asked what he was trying to do, his only answer was "You'll see". Once he said something about "changing the face of the nation".

One evening at the dinner table, about six months before admission to the hospital, Bob astonished his family by pushing back his plate and saying angrily, "I'm getting fed up with all this spying". He then announced that his fellow workers were all watching him and discussing him in little knots that broke up as soon as he approached. His father discovered later that his son's fellow workers had indeed been watching and discussing him, because he had become uncommunicative, was muttering to himself and would sometimes interrupt a controversial discussion to say that it all was being taken care of. At home, the patient kept the blinds down in his room, even in the daytime, and covered the basement window near his bench with soap. He seemed to his family preoccupied now more than angry, and he frequently stopped eating to stare into a corner or to listen.

Some three months before admission, the patient complained to his father that a certain woman was pestering him psychically,

robbing him of his ideas, and interfering with his plans. He said that she had thrown a psychic spell over him which enabled her to see him in the dark, to read his mind at a distance and tune in on this thoughts. Because of the spell, he also had psychic powers. He thought it strange that everyone else could not see them at mealtime, even those which he pointed out to them; but this only confirmed his beliefs in his psychic powers. The things Bob heard disturbed him greatly, and he became increasingly irritated that his family seemed to hear none of this, and kept insisting that they listen. Bob's behavior became progressively worse until he finally rushed over to the neighbors house and started banging on the neighbor's door. The police handled it from there.

At the hospital, Bob was at a loss to explain the means by which his persecutors operated as they seemed to, but he had no doubt of the verityof all he reported. He said that his psychic power of hearing was on the increase and that he wished to preserve and exercise it because it warned him of his enemies intentions. As he spoke, his speech showed some fragmentation, with occasional blocking that was relwted to his auditory hallucinations. His visual hallucinations seemed to persist and be quite vivid. The broken speech patterns, hallucinations and other actions lead you to conclude that Bob is completely psychotic.

You conclude that the delusions of persecution, the hallucinations, the broken speech patterns, the disoriented and disorganized thinking, and the eventual psychosis are all related to a thought disorder; and that treatment will involve the removal of this thought disorder.

CASE 24

NO PATHOLOGY PRESENT

Andy G., a young man, was arrested last Thursday when he physically assaited a policeman. It seems that the policeman saw Andy crouched in an alley looking out onto the street. The policeman slowly approached Andy then when he was within a foot or two of him he asked Andy what he was doing. Getting no response from Andy, the policeman approached him still closer and touched him upon the shoulder. Andy spun quickly around and started assaulting the officer. Before this had gone on for more than a few seconds, a second policeman spotted the situation and assisted the first policeman in bringing Andy under control and taking him to the station.

At the police station, Andy appeared to be quite frightened. He tells you that he was unaware that anyone was behind him and that when the policeman touched him on the shoulder, he thought it was one of "them". Upon further investigation, the police find Andy only seems to pay attention to about one half of what they are saying, and that at times the police are unable to understand what Andy is saying. About the only thing the police can understand from Andy's speech is that "they" are the people out to get him. Because Andy's behavior has so baffled the police, they have decided that Andy should see you.

When Andy enters your office you encounter a rather tough looking individual that is characteristic of the neighborhood from which Andy comes. As the first few sessions occur, you begin to notice a pattern of behavior that appears quite "classic" in its symptomology. Andy seems to be unable to successfully understand all that is said to him. His thinking appears autistic in the sense that at times he will understand you and other times he will not pay any attention to your questions. His speech patterns also appear to be somewhat broken. He will try to say a sentence, then his voice will fade out and occasionally come in much too loud. Whatever the case, too loud or too soft, he rarely seems able to talk in a normal voice. Finally his talk of "them" seems to be a major problem. Andy seems fairly sure "they" will get him sooner or later, but he refuses to tell you who "they" are. You are tempted to label his behavior as delusions of persecution. All of these symptoms appear to lead to your first conclusion, one in which you later find to be incorrect.

Your first conclusion, that of Andy's behavior being that of a paranoid schizophrenic is incorrect. This you found out last week when you conducted several tests and found out your suspicions about Andy were correct. Talking one day to Andy you found out that while talking close to Andy he answered,

but at a distance he was unable to. Also when facing Andy, he would understand you, but facing away, he usually wouldn't. A hearing and speech test confirmed your suspicions. Andy had been hard of hearing for quite a while now. It all started a year ago when he was in a fight and got his ears "boxed in". Since then his hearing has gotten progressively worse. Andy, being the leader of a local gang, was too proud to say anything, and his parents couldn't afford to have him treated. In desperation, Andy learned to lip read (which explains why he was able to understand those that faced him) but still his hearing loss continued. As Andy's hearing decreased, he became unable to tell when his voice was loud enough to be heard. As a result his voice became louder and softer without him realizing it and thus gave the impression of broken speech patterns--another characteristic of schizophrenia. Andy became more and more frightened when his hearing loss increased and was afraid to tell anyone. All this Andy relates in a tearful way. So your first conclusion was incorrect.

Several more sessions with the proper use of a hearing aid and Andy's communication level and hearing have been restored to normal. When told that his hearing will probably get worse, Andy agrees to prepare by going to a special school for the deaf. Since Andy will be many miles from his former home, he feels more at ease now and is able to relate to you who "they" are. It seems that Andy was the leader of a gang who would steal auto parts late a night. With the oncoming hearing loss, Andy decided to quit the gang. Soon thereafter several of Andy's gang were apprehended by the police. The remaining club members mistakenly thought Andy had "sold out" to the police which is why he quit. They therefore all agreed they would "get" Andy and make him pay for being a "fink". This is why Andy was running, and he was afraid to tell either you or the police because he was afraid of the punitive retaliation the police might take on him because he was a member of the gang.

CASE 25

PSYCHONEUROTIC REACTION, CONVERSION REACTION

You are at a party and your reputation as a psychologist is world famous, especially in the area of diagnosis. As the party talk turns to psychology and someone mentions your name, one of the guests claims that by using any "classic" reaction in pantomime, you would be able to successfully diagnose the problem. Another agrees. They all turn to you and suddenly you realize that your reputation is on the line. You claim you're not sure, but will be "happy" to try. One of your rival psychologists puts a specific disorder and a reaction on a piece of paper and shows it to Bill and Ann, the people who are to act out the disorder. The people clear back, and Bill and Ann enter from the kitchen. Bill is the one to have the disorder. When Bill comes in he looks at Ann who gives a sour face as she looks at Bill; Bill immediately "picks up" Ann's sour face and desplays it to all. A learned behavior, it appears, behavior is learned. Still, the fact that Bill picked it up from observation is something. Suddenly, Bill starts to shake all over.

The shaking that Bill undergoes appears to be anxiety so the first piece of the "puzzle" is complete. Next, Ann approaches Bill and appears to examine his legs and arms quite closely. After conducting what is like a medical test, she then raises her arms as if she had a medical chart. As she looks at the chart it doesn't look good. As she approaches Bill, she starts to cry. Apparently Bill's health has taken a turn for the worse. Reluctantly, Ann shows Bill the chart, telling him things don't look good. Bill, however, seems rather unconcerned and in fact he seems almost to enjoy his poisition. How can this be?

Several more times and Bill's problem seems to be clearer. He is obviously displaying "la belle indifference". Now you are armed with two important clues, one involves anxiety and the other is Bill's seemingly apparent acceptance of fate (la belle indifference) upon "hearing" a bad medical report. In addition, it appears that the problem is related to a voluntary activity, yet from the acting you gather that the symptoms that he displays are the resolution of an unconscious conflict over which he has no control. Ah, yes, the plot thickens.

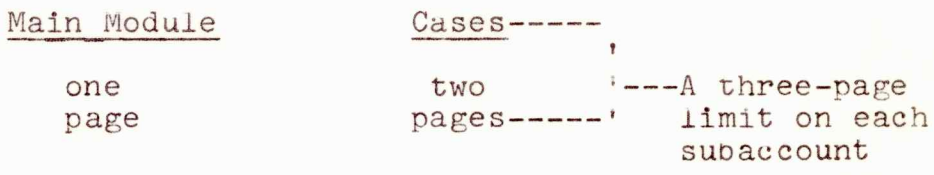
At this point you are able to conclude the first part of your diagnosis. It is that Bill suffers from a psychoneurotic disorder. Now the specific reaction. You look closely. Bill appears to be ill, yet he relies on his fate to be the same. Now Ann appears to administer a drug to Bill that is suppose to cure him, and behold, it works in the complete opposite--Bill jumps up and runs around and around. He has full control

of his arms and legs. As Bill runs around Ann turns aside and is trying to "say" something to you. What was that? Oh, yes, now you understand. Her wonder drug that was administered to Bill was nothing more than a sugar pill. The old placebo trick; works everytime (almost anyway).

Now everything comes quite clear to you and you are able to make the correct diagnosis quite easily. All the classic symptoms are present, a psychoneurotic disorder whose specific reaction is related to "la belle indifference", unconscious conflict, and relief from symptoms when a placebo is administered. Behavior is represented by a term used by the ancient Greeks. What was the term used? Oh, yes, you remember now--they called it---hysteria.

APPENDIX II

Because the program had a three-page limit, it was necessary to use disc files for storage of connecting information. Thus, the major programs were designed to open and close the file space so that access to the cases could be made. Because of space limitations, we connected three, one-page programs and these programs acted as 'switchboards' inputting and outputtting information and feedback thatwere on the disc files. It may be noted, that once on the disc tape, we could place as much information in the files as we desired as long as we had only thee pages in the main mode. The only other two restrictions were that our main program, "Clinic" had to be one page, and our cases had to be a two-page limit. This is illustrated below:



With these limitations, it became quite difficult to stay within the confines of the limit, and often we used an "input-output logging" (I/O) process to cut down on the programs. Limits are determined by specific "bits" of information that make up "bytes" in a computer with a specific number of "bytes" that constitute a page. This number may vary from computer to computer. Thus, the program "Clinic" was our main module. Each case had to be declared an entry external using the key (DSJM). It may be noted that our "lock-inkey" was (DSJMLK) and was used to insure the safety of our programs from

being erased when a student used the key, then used only the (DSJM) part of the code. This insured that no erasures would accidentally occur. The entry external key put the programs on the disc files. From the master program, all the necessary programs creating a smooth workable "Clinic" were called forward. The subprogram "Label" started things off by welcoming the student, then calling forth another program "Psydic" which created the 45 reactions that a student may use. After the reactions were given, the program would return to "Clinic" so that a student could then choose his case. "Clinic" would then work with "Psydic" to determine if each answer was correct or not. A correct answer moved the computer to WIN on each separate case. In addition, the computer would immediately go to WIN if the student, after any clue, correctly identified the reaction (WIN here merely congradulated the student and asked him to choose another case). If asstudent, after being asked for a case, would type a 99, the computer (in the "Clinic" module) would thank the student for coming and ask him to "logout" ("logout" are the letters typed to terminate a computer program in the CPS mode). Thus, the programs were interconnected and cooruinated so that a three-page limit can be easily kept utilizing the file storage system in the CPS mode.

The major programs were "Clinic", "Psydic" and "Label". These programs, in conjunction with the actual cases and the storage files allowed successful operation of the program while adhering to the three-page limit. Other programs were also

of use, although not essential and of only minor importance. "Ordic" was the only deviation from this, and it created the psychology dictionary in "Psydic". "Update", another program, was created to allow for modification of the dictionary ("Psydic"). This allows for the number of disorders appearing in "Clinic" to be increased from 45 to almost 150.

Turnaround time (T) was an important factor since the program interacted a great deal with the students. T is the amount of time to receive feedback from a stimulus input into the computer. T was significantly shortened by "Upcase", a program designed to change all lower case letters to upper case which cut down on evaluation and feedback.

Several other "dummy" programs were also used as "space savers". Subaccounts in CPS mode are on a "first come, first serve" basis. Once space is filled it is impossible to put more programs in a subaccount if the master accounts are filled unless someone erases a program thus creating additional space. A master account is divided into subaccounts, each given to an operator. To insure we had enough space, we saved some of our previous pilot material so that if additional space was needed, we merely had to erase one of these programs and more space would be created.

This then, explains the method used and the program utilization of the various programs in out CPS system.

APPENDIX III

INSTRUCTIONS

ON THE FOLLOWING PAGE IS A LIST OF LABELS USED TO DIAGNOSE ABNORMAL BEHAVIOR. LOOK OVER THE LIST CAREFULLY AND TRY TO REMEMBER WHAT BEHAVIOR IS ASSOCIATED WITH EACH LABEL.

ON THE SUBSEQUENT PAGES OF THIS BOOKLET YOU WILL FIND TWENTY-FIVE CASES. EACH CASE IS COMPOSED OF A SERIES OF CLUES. READ ALL THE CLUES WITHIN A CASE AND MARK IN THE BLANK PROVIDED THE CORRECT DIAGNOSTIC LABEL. YOU MAY USE THE SAME LABEL MORE THAN ONCE.

NOW RANK THE CLUES WITHIN THIS CASE PUTTING A ONE(1) NEXT TO THE LEAST REVEALING CLUE (AS RELATED TO RELEVANT INFORMATION PROVIDED), A TWO (2) NEXT TO THE SECOND LEAST REVEALING CLUE, AND CONTINUING THE RATING THROUGHOUT THE CLUES UNTIL YOU PUT THE HIGHEST NUMBER NEXT TO THE MOST REVEALING OR OBVIOUS CLUE.

AFTER THIS, PROCEED TO THE NEXT CASE. MAKE YOUR DIAGNOSIS AND RANK THE CLUES. CONTINUE WITH THIS PROCESS UNTIL YOU HAVE COMPLETED ALL TWENTY-FIVE CASES.

WORK SLOWLY AND CAREFULLY AND TAKE AS MUCH TIME AS YOU NEED. IF YOU HAVE ANY QUESTIONS, RAISE YOUR HAND. WHEN YOU HAVE COMPLETED THE ENTIRE BOOKLET, RETURN IT TO YOUR INSTUCTOR.

GOOD LUCK.

THE FOLLOWING IS A LIST OF REACTIONS AND THEIR CORRECT TITLES:

TRANSIENT SITUATIONAL PERSONALITY DISORDER

- ADJUSTMENT REACTION OF INFANCY
- ADJUSTMENT REACTION OF CHILDHOOD
- ADJUSTMENT REACTION OF ADOLESCENCE
- ADULT SITUATIONAL REACTION
- ADJUSTMENT REACTION OF LATER LIFE

PSYCHONEUROTIC DISORDER

- ANXIETY REACTION
- DYSSOCIAL REACTION
- CONVERSION REACTION
- PHOBIC REACTION
- OBSESSIVE-COMPULSIVE REACTION
- DEPRESSIVE REACTION
- PSYCHONEUROTIC REACTION

PSYCHOPHYSIOLOGIC AUTONOMIC AND VISCERAL DISORDER

- SKIN REACTION
- MUSCULOSKELETAL REACTION
- RESPIRATORY REACTION
- CARDIOVASCULAR REACTION
- HEMIC REACTION
- LYMPHATIC REACTION
- GASTROINTESTINAL REACTION
- GENITOURINARY REACTION
- ENDOCRINE REACTION
- NERVOUS SYSTEM REACTION
- REACTIONS OF ORGANS OF SPECIAL SENSE

SCHIZOPHRENIC REACTION

- SIMPLE TYPE
- HEBEPHRENIC TYPE
- CATATONIC TYPE
- PARANOID TYPE
- ACUTE UNDIFFERENTIATED TYPE
- CHRONIC UNDIFFERENTIATED TYPE
- SCHIZO-AFFECTIVE TYPE
- CHILDHOOD TYPE
- RESIDUAL TYPE

PARANOID REACTION

- PARANOIA
- PARANOID STATE

PERSONALITY DISORDER

- ANTISOCIAL REACTION
- DYSSOCIAL REACTION
- SEXUAL DEVIATION
- ADDICTION

MANIC-DEPRESSIVE PHYCHOSIS, CYCLIC TYPE
PSYCHOTIC DEPRESSIVE REACTION
INVOLUTIONAL PSYCHOTIC REACTION
ACUTE BRAIN DISORDER
CHRONIC BRAIN DISORDER
MENTAL RETARDATION
NO PATHOLOGY PRESENT

EVALUATION

CLUE( ) This case involves a 35-year old male business executive who has been quite successful and has a very nice home in the suburbs of beautiful Bowling Green, and he has a lovely wife and two children who are in grade school. He had no prior history of psychological disorder until the present problem arose. He has, however, over the past few months seemed to become increasingly moody and irritable; and he has spent more and more time working alone in his office. Last week, for no apparent reason, he suddenly tried to strangle his secretary. Other people in the office succeeded in stopping him, but it took five men to do so. For this reason, the police were called and they have referred him to you for diagnosis.

CLUE( ) The patient has been showing some signs of a disturbed life for some time (a few weeks). Since he has lost his appetite, he seldom feels like eating, spends increasing amounts of time just staring off in space, and has begun to show a "reverse sleep cycle". (A reverse sleep cycle means that he has begun to sleep during the day and stay up most or all of the night.)

CLUE( ) Your patient was very quiet during your interview with him. He sat stiffly in his chair, often seeming not to hear your questions or comments. You noticed that he held his hands rather oddly on his leg, palms up, and when you asked him about this he simply seemed to ignore your question. His speech seemed slow and somewhat labored, as well, and he paused for several seconds before responding to your questions. In addition, he reported no recollection of the incident with his secretary, and was mildly troubled by the thought that he was seeing you at the clinic.

CLUE( ) This man has been noted by some of his close friends to be increasingly difficult to understand in a conversation. His ideas seem somehow difficult to follow and he occasionally says some pretty bizarre things.

CLUE( ) By way of summary of your observations of this patient you've decided that this patient is characterized by a thought disorder, prominent motoric symptoms such as the changes in his speech patterns and the "posturing" which he showed during the interview, and by at least one outburst of uncontrolled and violent behavior. He also shows considerable autism in the clinic, spending considerable time in private fantasy.

EVALUATION_____

CLUE( ) Upon further investigation you find that Helen, a normally very bright student has been doing very poorly in several of her courses. And she needs at least a three-point this quarter to get to graduate school. Further investigation also reveals Helen's accident occurred 3 days prior to finals, and by some strange coincidence she is also right handed.

CLUE( )This case involves Helen, a 25-year old student. She had had no history of illness. Six months ago Helen met Bill, a graduate student and considered a real swinger by those who know him (and a lot who didn't know him). Three days ago, Helen fell down a flight of stairs and her right arm was paralyzed. She was admitted to you this morning.

CLUE( ) Upon admission you were informed that Helen had no prior record of any psychological or physical problems. Upon preliminary questioning, Helen seemed quite pleasant but further examination revealed her to be hesitant to discuss Bill and when asked about her schoolwork evaded the questioning by saying she felt rather ill and asking to leave.

CLUE( ) When your investigation is complete you find that Helen was a fine student making excellent grades until she met Bill. After that her grades went downhill. Also if her finals are not taken she may make them up if she has a legal excuse. Today you get her medical report and it is no real surprise to you to find that she if fine and there is absolutely nothing wrong with her.

EVALUATION

CLUE( ) When your investigation is complete, you conclude that Bill's anxiety was caused by his near miss of the oncoming motorcyclist and that this anxiety was generalized to oncoming bicyclists.

CLUE( ) Upon interviewing Bill, you find that the main reason he seems upset is because he becomes very anxious when he observes or talks of bicycles. Bill seems fairly sure that he will be hit by a cyclist as they ride by him and becomes very anxious when a cyclist approaches him. He suffers anxiety when he sees one go by or even when he thinks of bicycles.

CLUE( ) Upon further investigation, you find that the accident that Bill was involved in was caused when he swerved off the road to keep from hitting an oncoming motorcyclist that was approaching him on the wrong side of the road.

CLUE( ) This case involves Bill, a sophomore at Bowling Green State University. Bill is a good student with above average grades and has a lot of friends. He has no previous history of any psychological problems. Last week, Bill was involved in a rather serious automobile accident. Although, Bill was unhurt, he was badly shaken up. Since that time, however, Bill's mood has changed considerably. He has become rather irritable. Lately, he has become so nervous and upset that he has decided to see you.

EVALUATION

CLUE( ) Martha, although she has informed you of George's previous behavior, is unsuccessful in talking George into seeing you. Finally after several months of hounding, George agrees to see you just so that Martha will stop bothering him. When George enters your office you find quite a different person than you expected. George just walks in and slumps down in a chair. He tells you that all he does is work, work, work and seems to have no time to "live". As he sits there, he complains of insomnia, general body discomforts and his inability to eat his wife's cooking. All these things and much more George complains about in a dull sullen voice.

CLUE( ) After George's visit he doesn't return for quite a long interval. When he does, it is by the recommendation of the authorities. This time, you encounter some real surprises. When he enters your reception room, you hear so much noise that you must investigate. You find George flirting with your secretary and being very rude and boisterous. Upon getting George into your office, you find him to be extremely excited and loud. He shouts about how he was fired from his job and he'll probably starve, but as long as he remains "invulnerable" he won't need to eat. George then grabs some of your books and throws them on the floor. He then starts running around your office shouting so loud you must call for assistance, and have George committed.

CLUE( ) This case involves George and Martha M., a married couple of three years. George is a high pressure salesman and works for a big firm that lately has started laying off top executives. George finds out that he has a fifty-fifty chance of being laid off even though he is one of the most lively, active and friendly salesman on the staff. Last Saturday, George and Martha went to a party. At a party, George has always been referred to as the "life of the party". He laughs, jokes and talks loudly. Lately, however, Martha has noticed that George has become more and more unruly at a party. George doesn't drink at all but still his loudness continued. At this last party, George became obnoxious and loud until both were asked to leave. Martha has noticed George becoming more and more loud around the house. Also, in an effort to retain his job, George has become more and more aggressive in his sales pitch until he becomes almost unbearable. Martha has been so upset over George's behavior change that she has decided to have George see you.

CLUE( ) In the hospital, George immediately became the ward clown. He ran up and down the hallways yelling, joking, laughing, and making a nuisance of himself. He fluctuated rapidly from being angry to being gay or occasionally violent. This type of behavior was displayed for a time. After being in the hospital for some time, you've begun to notice some definite changes in George's mood. He has become sullen and

only sits in his room for hours and stares out his window. He is convinced that his body is failing apart and complains constantly of being ill for no apparent reason.

CLUE( ) For several short intervals, George has been fluctuating between moods. In one interval, he becomes so loud and violent he must be supressed. In conversation, he moves from one subject to another so rapidly, he is hard to follow. At the next interval, he becomes withdrawn and inactive. There seems to be no relation between the duration of the attack and the normal intervals. However, you note that George seems to suffer from more attacks of sullenness than of elation. At the present time George has experienced a very long interval of sullenness. He suffers from horrible hallucinations and has to be bathed and fed. You conclude that the basis for this behavior stems from a reaction to anxiety caused by pressures exerted from George's job, his wife, and his home life. Finally, you are unable to examine George any further because he has become completely psychotic. You conclude that George suffers from "circular psychosis".

EVALUATION

CLUE( ) Upon investigating further, you find that Bobby comes from a broken home. His mother left him soon after he was born, and he has been raised by his father. Also, Bobby and his father live in a very poor section of town and are barely able to make ends meet. You went to talk to Bobby's father, but when you arrived at his house, you found that Bobby's father was arrested last week and is now in jail. Oh, yes, you also find out that Bobby's father was arrested for stealing.

CLUE( ) When Bobby enters your office, you spend several minutes talking to him. He seems like a rather pleasant boy. After that, you administer to Bobby a battery of personality and intelligence tests. The next several visits you continue testing for intelligence, personality and aptitude. Your results show that Bobby's I.Q. is 105 and he has no specific personality problems. This leads you to conclude that Bobby is within normal limits in terms of his test responses and has no intrapsychic defects.

CLUE( ) Bobby is a young man aged 14. He has been brought to you because he has been caught shoplifting. He was caught stealing from the same store three times. The first time, he was warned; the second time, he was punished by spending three days in a home for boys; and the third time, the authorities have concluded that Bobby is "sick" and needs your attention.

CLUE( ) Upon completing your investigation, you reached some definite conclusions. First of all, Bobby is normal in the sense that his behavior isn't "sick", but rather it is illegal. Second, Bobby's behavior is learned and the reinforcement for this deviant behavior stems from 1) the model provided by his father, 2) his peer group providing social and peer reinforcement, and 3) as a result of these two things, the status, meaning, and values placed on considered "deviant" and illegal by the authorities. You conclude that Bobby will continue his learned behavior patterns as long as his behavior is not extinguished for the "deviant" social mode and not given an opportunity to emit and be reinforced for socially appropriate behavior.

CLUE( ) Puzzled by how Bobby's father could be in jail and how he could feed and clothe himself, you start investigating his background. You found that since Bobby had so little love in the home, he had turned to people outside the home for sources of reinforcement. For these several years, you find that Bobby's "friends" have been a group of so called "avengers". This group replicates a modern day Robin Hood and his merry men whose sole purpose is to "steal from the rich, and give to the poor". To accomplish this, the group steals from stores then sells the "hot" merchandise and uses the money to supplement

their own family incomes as each member of the group is extremely poor.

EVALUATION_____

CLUE( ) Cindy's visits continue, but her hallucinations continue to increase along with her belief in supersensory powers. Cindy seems sure now that she can "communicate" with any person who has died. Your conclusion is that Cindy suffers from a thought disorder and that the thought disorder has been the basis for her delusions. Your final recommendation is for Cindy to be placed in a mental hospital until her thought disorder can be removed.

CLUE( ) This case involves Cindy M., a graduate student in English. She spends most of her time alone reading or meditating. Several years ago, Cindy became involved with a group that is interested in communication between the living and the dead. Within the last year, Cindy has become more and more involved with this group. As a result, her grades and schoolwork have become progressively worse, much to the alarm of her husband, Jan. Last week, Jan came to see you and describe how Cindy had grown progressively worse within the last year, becoming more and more involved with her group. She now spends a major portion of the day talking to seemingly no one. When confronted with the problem, Jan reports Cindy has become increasingly hostile and reluctant to talk about it. Now, when Jan tries to show Cindy the logic in the situation, or even mentions anything about the problem, she becomes violent and throws things. As a result of this, Jan has decided that Cindy should see you.

CLUE( ) Cindy has been visiting you on a weekly basis for several months now. Some rather definite behavior patterns seems to exist. Cindy, when not involved with material relevant to her beliefs seems often quite friendly. However, when she is involved in any way with her unusual beliefs, she usually responds with anger or aggression. Cindy especially appears to become angry whenever you question her too closely. Cindy's visions have appeared more frequent, and her speech patterns are beginning to become broken and confused. Cindy talks of one subject then seems to leave a "gap" in the conversation then returns to the same subject. Cindy tells you that people who are trying to get her to study and stop "communicating" are persecuting her because they are jealous due to the fact that they lack her powers. Cindy continues to provide you with "proof" that she does possess these powers, but as her proof builds, you notice that it becomes more and more unrelated to the subjects that the distortions that Cindy makes so that the data reinforces her beliefs are so "far out" as to be bizarre.

CLUE( ) When Cindy enters your office, you find a friendly, alert, and intellectually responsive person. When questioned about her ability to talk to the dead, Cindy replies that she has "proof". Her "proof" it turns out are rather

distorted bits of information and quotes taken from authors who acclaim to the possibility of communication between the living and the dead. Although some is factual, Cindy describes the information as having been written about her. She appears to be distorting to buttress her belief structure. Not only is Cindy convinced she has the power to "talk" to the dead, but when she visits you you find that Jan never mentioned her ability to "see" the dead also. Cindy seems convinced that these visions are real, and that she feels she has been gifted with these unusual powers. When you pursue the subject still further, however, Cindy is angered at this close questioning and you are forced to end her visit.

EVALUATION

CLUE( ) Your interest in Oscar leads you to do some outside "detective work" on your own. Your first stop is Oscar's office. You're considerably impressed by the tremendous activity that occurs all around you and soon learn that Oscar's responsibility has increased tremendously since his promotion. His secretary, however, has also noticed a pattern of rather changed behavior. She tells you that he spends a goodly portion of the business day observing and cursing the clock. He says that clocks are a "menace" and should never have been made. Also she tells you upon placing checks or bills within envelopes, he will quite often reopen the same envelope several times to "make sure" he has signed the check or correctly filled out the bill. Finally, his secretary states that after a particularly bad day at the office, she can usually observe Oscar touching every car in front of his in the parking lot. This wouldn't appear unusual, she states, except that there are sometimes a hundred cars and Oscar only touches the left windshield wiper of each one.

CLUE( ) This case involves Oscar T., a young business executive who has been sent to see you by his wife, Ruth. Ruth has informed you that Oscar's behavior, particularly since his big promotion last year, has begun to cause her some alarm. She reports that Oscar, upon leaving home, has been occasionally coming back to "make sure" he turned off his electric razor, or the shower, or any one of a dozen or more things. Ruth said that at first she was unconcerned over Oscar's behavior, but within the last few months, Oscar has progressively increased his "making sure" in the same day. This rather alarming behavior has upset Ruth somewhat so she has decided that Oscar should see you.

CLUE( ) When Oscar enters your office, he greets you with an air of irritability, complaining about his wife and her "meddlesome ways". After several minutes of preliminary questioning, Oscar (whose eyes have been almost constantly on the clock) suddenly announces that he has to leave. When asked why, Oscar tells you because he thinks he left the water running at home. You suggest to Oscar that he call his wife at home and ask her to check. When confronted with this idea, Oscar's behavior suddenly changes. He jumps up and begins pacing to and fro in your office kicking your rug each time he passes over it. After several minutesof this activity, Oscar tells you that it probably would be better to just call his wife. With that, he sits down in a chair and talks in a much friendlier and more relaxed manner than when he arrived.

CLUE( ) Although Oscar is still continuing to see you, you have reached several rather definite conclusions concerning his problem. Oscar, you conclude, suffers from intermittent anxiety reactions which lead to irrepressible tendencies to do,

say, or think something in a particular way. If Oscar indulges in his particular thoughts or acts, he is provided with relief from anxiety and is also providing gratification. If not, the result is intolerable anxiety. Finally, Oscar's behavior is a reaction to a social situation, and the most direct form of treatment is the teaching of new, competing responses so that the old responses are not in effect any longer.

CLUE( ) Oscar has been to see you for several months now. His pattern of behavior has not deviated significantly from the reports given by his wife or his secretary or your observations. Whenever Oscar feels particularly nervous or irritable, he emits one of his "strange act" (as he calls them) whereupon he feels considerably better and more relaxed. When questioned as to why he emits these particular behaviors, Oscar says he cannot explain why--he only knows that he must do them. Oscar tells you that something completely outside him seems to be controlling his behavior. An example of this "alien temptation" is the occasional idea or urge to kill someone. This horrifies Oscar, because the person usually connected with these thoughts or urges is characteristically a close and beloved relative.

EVALUATION

CLUE( ) When Pat enters your office, you encounter a rather sloppily dressed but seemingly friendly person. Although it has been only three weeks since you talked with Sue, you find that Pat appears to have a definite "dilapidation of personality" as Sue stated. Although you try to conduct the interview with seriousness and a degree of formality, Pat responds with grimacing and giggling to otherwise emotionally serious topics. Pat has the belief that his body is rotting and that several of his organs are missing. These beliefs are held in a rather unsystematized fashion, and Pat appears to totally disregard your logic or arguments of fact. Not only is Pat unaffected by all these beliefs, he thinks they are outrageously funny.

CLUE( ) Your inability to communicate with Pat has occurred, you conclude because he has become completely psychotic. Pat's hallucinations, delusions, changeable moods, and broken speech patterns have occurred because Pat suffers from a thought disorder. Your final recommendation is that Pat remain in the hospital until this thought disorder can be removed.

CLUE( ) Pat has experienced considerable personality disintergation. His moods seem to change constantly. He is silly, absurd, and irritable; he laughs, cries and his mood changes all the time. Whatever the mood, however, it seems unrelated to his surroundings or the situation he is in. Pat's speech has become inconerent and sometimes truely bizarre. He talks for several sentences, then seems to leave a "gap" then returns to the same subject. Pat's hallucinations have seemed to increase. Although his hallucinations center around some rather horrible ideas, Pat seems to respond to them with gaiety and laughter. As his hallucinations and delusions increase, you notice that they too like his personality are becoming rather childlike and "regressive". Finally, you are unable to effectively communicate with Pat any further and must have him committed to a hospital.

CLUE( ) This case involves Patrick H., an undergraduate student at Bowling Green State University. Pat has come to see you at the request of his girlfriend, Sue. Sue has previously told you that although Pat has always been a bit "flighty" and occasionally tending to joke in rather inappropriate ways, he has always seemed otherwise "normal". Within the last few weeks, however, Sue reports some definite changes have occurred in Pat's behavior. She reports that Pat's mood has become increasingly depressed. She states that he usually responds with apathy and complete detachment. While acting in this depressed state, Sue reports Pat will occasionally burst forth with an apparently humorous or jocular attitude. When this burst comes, Pat will smile or even laugh to a seemingly

inappropriate situation. This "dilapidation of personality" (as she refers to it) has caused Sue such great alarm that she has decided to have Pat see you.

EVALUATION

CLUE( ) When Ray enters your office you encounter a rather bright friendly person. Ray doesn't seem to be able to understand English very well but he is very talkative so you can understand him reasonably well. You are surprised at the person you encounter, expecting a "depressed" person. When Ray is questioned about school, he tactfully avoid the subject, implying he doesn't like that situation. A few more visits lead you to conclude Ray is an intellectually responsive person, but his "depression" in school continues. After several, visits, you administer a battery of tests. Ray, you conclude, not only doesn't suffer from "depression" as previously diagnosed, but thatfrom his test results, he doesn't seem to suffer from any apparent underlying personality disturbance.

CLUE( ) Your interest in Ray has lead you to do some background work on him. You learn that education as we know it is an entirely new and novel experience to Ray. Homework and responding to teachers are all foreign to him since he had no formal educational experience in his country. This means Ray has been put in a situation different from any that he has ever experienced before. Thus, the fact of the strangeness of this new situation to Ray has led you to conclude that Ray's problem is one of "cultural shock".

CLUE( ) This case involves Ray S., a foreigner who has been grought to you be school officials. Ray is a young boy of 20 and has just recently arrived in the United States. His scholastic achievements have been so poor however that Ray had to be placed at a rather elementary level to learn the "basics". School officials, however, report that Ray will not respond in class but sits allday in a dull, sullen manner. When asked questions, Ray will eagerly listen, then usually frown and sink back into a dull, sullen mood. The school officials have labeled his behavior as "depression" and sent Ray to see you.

CLUE( ) Ray has not been taugnt how to deal with the present situation in school, in other words, he doesn't know what is wanted from him or how to respond. This has thus created an "overwhelming situation" to Ray. Few, if any responses that Ray could make in school were likely to be satisfying. As such, the person's adjustive capacity is one side of the situation, and an abrupt change reinforcing contingencies is the other. Not knowing how to act, Ray has chosen not to react at all, which led school officials to label his behavior as "depressed".

CLUE( ) Ray's abrupt change in behavior once he is out of the school situation has led you to conclude that his problem is "situational" and that treatment will merely involve teaching Ray how and when to react in the school environment which has represented a situation that is new and foreign to him.

EVALUATION_____

CLUE( ) Fred tells you that the number of his attacks seem to be increasing. You notice that this must be so, as his number of attacks in your office is also increasing. On one visit, as Fred was talking, it started to rain outside and Fred experienced one of his attacks. Still another day, while in your office, Fred had an attack while watching a man turn on a hose. When questioned about these incidents, Fred later admitted that anything that reminded him of swimming or water or the lake in which he almost drowned will serve as a stimulus for one of his attacks.

CLUE( ) Fred is having an attack! You first notice that his face appears flushed. Closer examination reveals that his eyes have become dialated. His breathing appears to have become rather shallow. Fred tells you that he feels extremely dizzy and that he may faint. He appears to tremble as he looks anxiously around your office. He tells you that he must not talk of his accident any more and that he must get out into the fresh air so he can "breathe" again. With that, he grabs his coat and literally runs out of your office.

CLUE( ) Your investigation is complete, and you conclude that Fred suffers from a complex phobic response (the fear of drowning) that has generalized so that Fred has developed phobic responses to many stimuli. Your final recommendation is systematic desensitization to be used conjointly for heirarchies of emitting new responses as well as visualizing what would happen with increasing assertion.

CLUE( ) This case involves Fred J., a young businessman who has been sent to see you by his medical doctor. Fred complained to his doctor of feelings of dizziness and faintness as well as feelings of being shocked. Fred said there was no warning before these "attacks" occurred. Worried by these attacks, Fred consulted his doctor. The doctor, after running some preliminary tests, concluded that Fred's problem was not physical but was associated with somatic symptomatology. He has therefore recommended that Fred should come to see you.

CLUE( ) When Fred enters your office you encounter a friendly sort of person. For the first several visits, you ask a number of questions but do not see any signs of Fred's problem. However, on the fourth visit, you begin to explore Fred's past and while doing so, uncover a few interesting incidents. Among them is a drawning that almost happened to Fred several years ago. Fred tells you that since then he has had a morbid fear of swimming. As he describes all of this, you notice a change that begins to occur in Fred as you suddenly realize that he is having one of his attacks.

EVALUATION

CLUE( ) Your theory is the treatment given is to use mental pictures and scenes that Elaine evokes to create visual situations in a heirarchy of increasing anxiousness. The visual scenes become increasingly more difficult and if at any time Elaine shows any signs of tenseness she signals you and you return to the relaxing stage after directing her to stop the image. The process is called "systematic desensitization".

CLUE( ) Elaine was bitten by a very mean cat several years ago. Since then she has experienced extreme anxiety and discomfort in the presence of any cats and even in the presence of some things that remind her of cats. Elaine attempted to control this anxiety by avoiding cats or anything else she felt was related to or associated with cats.

CLUE( ) This type of treatment is called "in vivo desensitization". Elaine was gradually helped to approach cats by first using materials and pictures more and more closely related to cats and finally presenting a live cat in the form of a gift. As in systematic desensitization if at any time she was tense, she remained at that "stage" in her therapy until she overcame her anxiety. You find that this procedure is effective in curing Elaine's problem.

CLUE( ) Unfortunately your first treatment--one of systematic desensitization--does not work. It fails mainly because Elaine is unable to conceptually visualize the various mental images she is asked to create, therefore another line of "attack" is needed as you utilize another technique. This treatment is a great deal simpler than your first attempt. Your first session involving this type of treatment is one in which you have Elaine first feel the textures of different materials, working from velvet up to a glove made of rabbits fur. In succeeding sessions you next have Elaine look at pictures of cats and stroke toy kittens. Following the end of each session you have her take these objects home and place them around her house. This continues for several more sessions and finally you give her a baby kitten which she will raise to a full grown cat.

CLUE( ) Elaine P., a young saleswoman, has been to see you for several weeks now. You have determined her problem and are attempting to remove her disorder with one of the several techniques available to you. The technique you use is a relatively common one, and approximately the same procedure is used each time Elaine lays down on a couch in your office. The shades are drawn and the lights are turned down low. Having previously established a basic trust in you from earlier sessions, Elaine is now taught how to relax her muscles. Having mastered the "relaxing" stage, you next ask her to visualize general mental pictures.

EVALUATION

CLUE( ) Steve appears to be responding to "internal" stimuli and this explains why he will not respond. It seems that his perception of the experimenters stimuli is "interferred with" by his own idiosyncratic autistic type of stimuli. As such, he appears to respond to stimuli you consider irrelevant. Further, because his behavior has been extinquished for discriminative stimuli, his response to other person's understanding and caring for him is also extinquished.

CLUE( ) You question Steve on a variety of subjects, but he seems to pay no attention to you. The mechanisms responsible for the maintenance of attention in the normal individual seem clearly to be disrupted in Steve. Although Steve will not answer any of your questions, he does seem to respond to "other" stimuli. The stimuli that he responds to however is not considered very relevant or significant by you.

CLUE( ) Your first conclusion is that because Steve no longer attends to the discriminative stimuli (acquired) that reinforces the people in his core culture, the influence of this group is reduced and the likelihood that he will become a rule breaker is increased. This theory may well explain his rather bizarre behavior.

CLUE( ) Steve also appears to have automatic obedience or automatic negativism in relation to what is asked of him. By this it is meant he will do everything that is asked of him or else he will give only one response (such as laughing) to what is asked of him. Formulating his behavior, you conclude that at this time he will do everything that is asked of him because if he is making minimal discriminations about his environment, Steve finds it easiest to do what is told of him. On the other side of the coin, Steve may sometimes respond with a ready made response because he finds that the bothersome process of attending to and decoding what is said to him, which he usually hasn't had great success at, can be short-circuited if he gives a singular response.

CLUE( ) This case involves Steve S., a construction worker who has been committed to the state mental hospital under your care. Your job is to observe and interpret his actions and from that deduce his problem. Steve has been to see a local doctor now for several years. The doctor (having made only minimal progress with him) has recommended him, along with the advise of the authorities, to your hospital. It seems that Steve has lately committed several bizarre acts. The neighbors noticed that his actions have been most unusual. His latest act involved a cat that he killed. He then tied it to the antenna of his car and drove around town displaying the mutilated cat. This shocking bit of behavior in Steve's rather conservative community has led the authorities along with his former doctor to have him sent to you.

EVALUATION

CLUE( ) After two months of therapy, you know Larry to be a friendly sort of person. He is however rather conservative and extremely hesitant to talk about his sex life. Larry does not go out with many girls, he prefers to stay at home alone. One day while in your office, Larry tells you that the previous night he killed another guinea pig. When asked exactly what he did following the killing, Larry tells you that he did the usual things; watched TV, played cards, and had his usual nightcap before going to bed. When asked if he did anything else at all, he reluctantly admitted to masturbating also. When asked how often this occurs, he answered you about once a week.

CLUE( ) Larry is one of the nicest people you've ever met, and when asked why he kills guinea pigs, he tells you he doesn't know why. He expresses a desire to find out and agrees to come in and see you on a twice a week basis. He comes in and over a two month period you give him a battery of intelligence and projective tests. You delve into his background as well as ask him hundreds of questions. During all this, Larry continues to kill the guinea pigs, although he does it now at night and in his house. After two months of extensive testing, you conclude that Larry displays behavioral difficulty only in one area (killing the guinea pigs) otherwise he is completely normal in every way.

CLUE( ) Larry, it seems, has been masturbating following every killing of a guinea pig. It appears that Larry has conditioned himself to associate the killing of a guinea pig with the pleasurable behavior of masturbation. As such, if there is a pleasurable stimulus. any behavior or stimulus immediately preceeding or continguously occuring may come to have sexual meaning. In Larry's case, the sadistic killing of a guinea pig heightened his desire thus allowing him to enjoy his masturbating much more. Your recommendation for treatment involves extinguishing the desire to kill the guinea pig as a stimulus to become sexually aroused and to put in its place a more socially acceptable competing stimulus, or merely to extinguish the guinea pig killing behavior without any type of competing stimulus in its place.

CLUE( ) You have been sent to see Larry B., a young store owner in a small town inthe Midwest on recommendation of his neighbors and the authorities. Larry is a friendly and generous person. He has never been in trouble with the law before. He has lived in the town for a year now and was voted "citizen of the year" by the townspeople. However, Larry also raises guinea pigs and three weeks ago a neighbor saw Larry take a guinea pig into the yard and with a club brutally beat the pig to death then walk back into the house. The neighbor, being quite shocked, had several other neighbors witness the exact same thing approximately a week later. Then last week,

the neighbors had the local police look on again as Larry completed the same act a week later. The neighbors and the police have contacted you; and you, in turn, have agreed to go and talk to Larry.

EVALUATION

CLUE( ) You are a psychologist and are isolated from your patient John K., a 25-year old bachelor, as you observe him in a small room through a one-way mirror. Your job is to determine John's problem and to recommend a course of action. You have presented John with a specific stimuli, but instead of responding to it in a normal way, he appears to be acting a bit unusual. The behavior he responds to the stimuli which seems rather self-defeating and incomprehensible to you, the "objective" observer. The situation at hand appears to be one in which John will attempt any possible solution.

CLUE( ) Panic is apparently John's behavioral response to this stimulus situation. John's panic response is based on the fact that stimulus contingencies that typically and previously controlled his behavior are no longer effective, thus leading to flight. Flight is a low probability response on John's "repertoire" of behavioral responses, but it's simply the best behavior available under the circumstances. The key to John's problem appears to be understanding why he panics in this situation only and otherwise appears completely normal in all other behavioral aspects.

CLUE( ) It seems that the stimulus that is presented to John is totally new and novel to him. As such, John is being asked to emit behaviors at which he is unskilled at. John is unable to cope with the situation and thus labels both the situation and his own behavior as disturbing. The act of labeling thus serves as a further aversive stimulus and panic and flight appear to be the only solution possible. You also notice that after John takes flight, and leaves the aversive situation (having been presented the stimulus) he becomes better quite rapidly and usually requires little or no treatment.

CLUE( ) In presenting the stimulus to John a pattern begins to appear. It seems that the stimulus presented to John is an adversive one for him. Further, within this adversive situation no satisfactory behavior seems possible. As such, the typical cooperation needed between John and the stimulus breaks down and flight appears to be his only adaptive response. This behavior you label as panic.

CLUE( ) You conclude that John's behavior represents a response to a situation that to him is "overwhelming". His adjustive capacity to the situation (the stimulus) is such that his is not emitting a response that is satisfactory to himself or others. A recession of symptoms (panic behavior) occurs when the situational stress diminishes. Your final recommendation is to have John be taught socially acceptable behavioral responses to deal with formally unencountered stimulus-situation.

EVALUATION

CLUE( ) Chuck has been labeled psychotic because of his inappropriate belief system. Chuck was found to be socially appropriate in all areas of life except one. In this one area, he holds beliefs differing from the remainder of the population. The beliefs are based on evidence that seems inadequate, contradictory, and invalid to both you and any other normal person.

CLUE( ) Chuck A., has been recommended to you by the hospital staff. Your immediate therapeutic goal is to reduce Chuck's anxiety and to re-establish genuine communication. To accomplish this, you are told to deal with Chuck in an interested, attentive and relaxed attitude initially with a certain amount of detachment and suspended judgement. In other words, to appear "neutral".

CLUE( ) Chuck's false beliefs and incorrect interpretations of external reality are manifested in delusions. Although Chuck suffers from no hallucinations, it appears that he does suffer from these persistent delusions in the form of persecution or grandure. Your recommendation is to withdraw reinforcement for the socially disturbing operants (delusions) and to shape alternative, socially appropriate responses to his false belief system, his delusions.

CLUE( ) When Chuck was first admitted, he was diagnosed as being schizophrenic. This was because of his basic incorrect interpretations of external reality. Upon closer examination, however, it was discovered that his intelligence and personality were well preserved. Also, few of the manifestations of the traditional schizophrenic were present. Thus, the label of schizophrenic was dropped. Yet, Chuck's behavior was still labeled psychotic.

CLUE( ) It seems that Chuck's anxiety is caused by his behavior which has been learned as a response to situations which have extinguished appropriate responses and shaped him towards his target behavior (his problem). In other words, Chuck's problem seems to be one of information and its evaluation. His basic problem, therefore, is one of being particularly sensitive to stimuli that others label as threatening.

EVALUATION

CLUE( ) Bonnie enters your office and seems to be a very bright and responsive person. Because of her acute arthritis, she tells you that it was necessary to quit her job. She tells you that she had wanted to stay on the job, but because of her pain she had become so useless at the office that she was asked to leave. While relating this, Bonnie does not seem greatly alarmed by her arthritis or even her occasional paralysis. She seems instead to have an attitude of patient forebearing. This acceptance of "fate" you label as "la belle indifference".

CLUE( ) On Thursday, Bonnie enters your lab to run an experiment. When told she will be asked to "simulate" the same conditions as when on her job, she complains by telling you she has been particularly bothered by her arthritis lately. You tell her of a new treatment for arthritis that can actually cure its effects. Bonnie is placed in a small room where she is to receive her treatment. While waiting for her treatment, she overhears two nurses talking outside of the amazing effects of the treatment and how it has never failed in its testing yet. You come in then and inject Bonnie with the special treatment. Following a 15 minute "waiting" period, she is ushered into the small room set up like an office. When asked to perform various office skills, Bonnie responds with amazing skill and accuracy to any task that is asked of her. When questioned later about how she feels, she reports her hands felt "like new again"; and that the drug given herwas truely amazing. The drug given her was a placebo.

CLUE( ) This case involves Bonnie Y., a secretary for a growing firm in the city. Bonnie has been raised by her grandparents as her parents were both killed when she was very young. Both grandparents suffer from sever cases of arthritis. Bonnie's entire family on both sides have had considerable history of arthritis. Although Bonnie is in her very early thirties, reports of arthritic pain has increased so much within the last two years, that she suffers from occasional temporary paralysis in both hands. You have been assigned to this case.

CLUE( ) A little background work gives you some insight into Bonnie's character. It seems that her arthritis attacks began to appear in college during one final exam week when she was unprepared. She was dismissed from taking the exam. Since that time, whenever the "pressure" became too great, Bonnie would begin to complain of arthritis problems. The paralysis of her hands was a result of increased pressure from her job as well as the increasing demand from her health-failing grandparents. An arthritic attack had provided her with a convenient "out" and was available to her anytime the pressure became too great. Her arthritis behavior was a learned role that she was able to adopt from her grandparents actual problems with arthritis.

CLUE( ) You conclude that Bonnie's problem is one of role enactment that has been modeled and shaped by her grandparents and that is maintained by reinforcement (not having to do the difficult tasks). Her chief characteristic is anxiety which becomes unconsciously and automatically controlled by utilization of a psychological defense mechanism which controls her arthritis attacks. Disturbances of any activity (such as pain) whether motor or a poport of sensory experience is related to Bonnie's problem. This behavior you label as hysteria.

EVALUATION

CLUE( ) Meg C., a student of Bowling Green State University, has been sent to you by the hospital staff. It has been predetermined that the psychological situation in which the behavior is emitted will be a better focus for treatment than her behavior per se., and that treatment will involve the teaching of new, competing responses to the behavioral responses she is now emitting. Your job as a staff psychologist is to determine the basis for Meg's behavior and recommendation of course of action.

CLUE( ) A pattern in Meg's behavior has seemed to appear. Whenever Meg appears to show signs of anxiety, she will excuse herself and go to the nearest sink to wash her hands. This "handwashing" behavior seems to be an anxiety release for Meg, and she will be acutely uncomfortable until she has emitted the act. Afterwards, she will appear very relaxed with no apparent signs of abnormal anxiety.

CLUE( ) With only the preceding to go on, your first job is to determine Meg's specific behavior that is a problem and under what conditions and the behavior will appear. You isolate Meg in a room and ask her to perform a series of tasks. As the tasks are made harder and she is asked to perform more quickly, you notice a change that begins to occur in Meg. She appears to become more and more uncomfortable. As this feeling appears to grow she begins to look all around the room. It appears she suffers from an abnormal amount of anxiety, and you are thus led to conclude that her problem is related to anxiety.

CLUE( ) The experiment was stopped before Meg was allowed to go any further, but still her anxiety seemed to continue. When asked why she was so excited, she gave no response but asked you is she could use the restroom. You told her of course, and gave her directions. After reappears from the restroom, Meg appears to be much more relaxed. In fact, you fail to discern any signs of anxiety. The following week, you again test Meg--this time in a slightly different manner but basically in the same situation as before. This time, however, a very curious thing occurs. During testing, as before, the anxiety appears to develop at an unusual rate. It continues to the same point as before, but this time something happens. Meg has reached a point of very high anxiety when she accidentaly knocks over a bottle of ink on her hands. Since you have a small sink in the testing room, Meg rushes over and washes her hands thoroughly. After that, she walks back to her desk, sits down and resumes her tasks with no apparent sign of anxiety.

CLUE( ) You conclude that with Meg's problem, anxiety is associated with the persistence of repetitive impulses to perform acts that even she herself considers unreasonable. Even

through the act, Meg considers them unreasonable, she is compelled to carry out the "rituals" so as to reduce the anxiety that makes her so uncomfortable. Treatment of teaching her new and competing responses to handle her anxiety is directly analogous to the treatment of phobias. This is because treatment of phobia may be used in the treatment of the type of behavior that Meg displays and visa versa. In other words, both reactions involve anxiety and are treatable by similar methods.

EVALUATION

CLUE( ) After several more shock treatments, your first conclusion about Billy's behavior seems definite. Billy's behavior it seems, has been extinguished for attention to the social stimuli to which "normal" people respond. More simply, the operant of paying attention to cues that others attend to is no longer emitted. This lack of attention and concentration gives rise to the misleading impression that the concentration gives rise to the misleading impression that the patient is intellectually impaired, whereas, he is actually intellectually inert. This, therefore, explains why school officials thought Billy was retarded.

CLUE( ) Further signs of abnormal behavior seem to present a clearer picture of Billy's problem. Billy's "invisible friends" as he calls them, are actual visual hallucinations that Billy can "see". Also Billy's speech patterns appear to be a bit strange. Billy will say a few words then appear to leave a "gap" in the sentence then return back to it. This behavior is what first made Billy's teacher think he may have been retareded, and as this behavior increased, she notified the school officials. Billy's inability to hear others and his hours of staring into space seems to be a result of his responding to internal, idiosycratic, autistic stimuli. Because of this, his perception of his parents, the teachers or the experimenters stimuli is "interferred with", and as a result the does not respond.

CLUE( ) Billy B., a young schoolboy, has been brought to see you by his parents. Billy's parents tell you that school officials have labeled Billy as being "mentally retarded". His parents argue that Billy is not retarded, using examples such as his seemingly active and intellectually responsive actions in his homelife activities. Although Billy's parents agree that Billy usually acts rather strange, spending hours talking to his "invisible friends", or spending time staring out the window while seemingly being totally unable to hear those around him, they are nevertheless so insistent that he is not mentally deficient, that you agree to see Billy.

CLUE( ) Billy has been to see you for several sessions now. It is, however, looking more and more as if the school officials were indeed correct. Billy, it appears will not pay attention to anything you tell him. It were as if he could not hear you, yet his hearing tests very acute. Billy seems totally unresponsive to any stimuli that you present him. On the next several sessions, you begin running some experiments with Billy. Using shock therapy, you find that when the response serves to terminate the noxious physical stimuli (the shock) Billy's response improves a great deal. In fact, it appears that Billy's responses all appear to be similar to those of normals when shock treatment is used.

CLUE( ) You conclude that Billy suffers from a thought

disorder and your final recommendation is that he be placed in a mental hospital until this thought disorder can be removed.

EVALUATION_____

CLUE( ) Several session with Mae seem to reveal some insight into her personality. Whereas, she was pretty, pleasant, and sexually attractive Mae now shows signs of increasing dissatisfaction and distress leading her to an increasing introversion. As Mae's depression seems to increase, so too does her feelings of unworthiness, uncleanliness and of wickedness. As Mae continues to see you, she experiences increasingly vivid feelings of unreality. She tells you that her body feels as if it does not belong to her. Also, Mae appears to hold herself responsible for everything bad in the world. Mae claims she is "the cause of all ills of the world, for the death of trees and babies, and for changes in the weather". All this and much more Mae reports.

CLUE( ) You conclude that Mae's very common problem stems from the "change in life" that is occuring to her now. You suggest as treatment a utilization of combining glandular replacement therapy and re-educational therapy to let Mae know how to properly accept her change as something that should be accepted and understood, not rejected and associated with the guilt of disappointment in not having children for Bob. As such, Mae's problem has created a prepsychotic personality problem that was involuntarily created.

CLUE( ) Curious as to how Mae's problem started, you contact Bob. Bob tells you that Mae has always been a very friendly and open person, but has changed considerably in the past few months. Bob tells you that all of Mae's personality problems started shortly after she visited the doctor and was informed by him that she was starting menopause or the "change of life" as the doctor referred to it. Previous to this, Mae and her husband had very much wanted children but wer unsuccessful at all attempts. Mae had many guilt feelings when she found out that it would now be impossible to ever have children.

CLUE( ) Mae A., an aging woman in her forties has been sent to see you on recommendation by her husband as well as the authorities. Mae's husband, Bob, tells you that for several months now Mae has suffered from restlessness, insomnia, fatigability, and extreme irritability. Bob says she often complains of anorexia, weight loss and constipation. He reports that her mood will vary from pessimism to frank depression. Her depression was so profound, Bob tells you that two weeks ago she attempted suicide. Because of her unusual behavior as well as a suicidal attempt, Mae has been brought to see you.

CLUE( ) Each time Mae talks to you now she appears to be agitated, depressed, distraught, and tearful. Most prominent

appear to be feelings of self-condmnation, inadequacy and hopelessness. These symptoms usually blossom into a severe, agitated, delusional depression, with Mae's problem no more profound depression is seen psychiatrically. Because of the symptoms so closely resemble manic-psychosis or schizophrenia, you are forced to conclude that Mae's personality is definitely prepsychotic.

EVALUATION

CLUE( ) When Jan enters your office, you encounter the friendly easy-going person that Jan's friends describe. After some friendly conversation, you question Jan about the shoplifting incident. Jan tells youthe has no control over himslef at the time but was under the influence of a man called George. As he talks on, you notice his speech and actions appear to be ossacionally psychotic.

CLUE( ) Jan L., a student at Bowling Green State University, has been sent to see you. Jan, it seems, has always been a very good student being very socially active and having many friends. He has always been a rather quiet and shy individual not usually speaking unless spoken to. Last week, however, Jan was arrested for shoplifting in one of the local stores. When arrested, Jan put up such a fight that additional assistance had to be called for. At headquarters, Jan became markedly different and quieted down to his old easy-going self. His actions have so totally baffled the authorities that it has been decided that Jan should see you.

CLUE( ) Several more sessions with Jan led you to conclude that Jan is definitely not psychotic but rather suffers from a neurotic disorder. In Jan's case, the diffuse association appeared to be a bit psychotic, but he has behaved with relative appropriateness and has not manifested true psychotic symptoms. In Jan's case, then, you notice anxiety as his major problem. As therapy continues you also notice Jan's personality containing a great deal of repression.

CLUE( ) Jan's problem, it appears, is anxiety created by repression. In Jan's case, the repressed impulses are desires to do something evil. As anxiety increased with Jan, he became no longer able to control his previously repressed impulses and thus acted on them by stealing and then causing a struggle. Jan tells you in subsequent sessions that George is the "evil man" within Jan that "makes" him do the evil things that he tries to repress. Jan relates to you other incidents that he remembers when George acted in a way Jan considered undesirable yet was unable to control.

CLUE( ) You conclude that in Jan's case the repressed impulses that gave rise to the anxiety has been discharged by George, his "other" self. As inferred from George's behavior, Jan has developed twin-dependent personality systems and is not labeled psychotic because he has knowledge and recollection of the acts of George. Your final recommendation is to have the repressed impulses brought into the open and to thus alleviate the anxiety that Jan suffers from by showing him that the other "personality" represents impulses that are repressed and that strive for expression.

EVALUATION

CLUE( ) Masou's story does not change. Each time he sees you, the same story is closely repeated. The classic symptoms seem to be present persecutory and grandiose delusions. Your first, conclusion then seems to be one of classifying Masou as suffering from a paranoid reaction. But you are quite unsettled by labeling his behavior as such and decide to do some detective work on your own.

CLUE( ) Further investigation reveals that the revolutionaries had been quelled, and it was safe for Masou to return. Members of his royal cabinet are here today to pick him up. The police chief and you are at the airport to see him off and he bows deeply to both of you. Your final conclusion is that Masou suffers from none of your first conclusions, and his only problems appears to be one of being slightly neurotic at all times.

CLUE( ) Your detective work leads you outside your office. Masou has informed you that he comes from a small island called Islac in the Pacific. Your research leads you to finding out that there is most definitely an island by that name. Not only this, but you learn that the island had been declared an independent country for many years and that the king, who had just recently died, had turned over the island to his young son. Because the son was so young, revolutionaries had tried to take over the country forcing the son to flee for safety. This was the last anyone had heard of the young king except that it had been rumored he had fled to the United States, having learned a great deal about the people and the language in his childhood. The name of the young king was one thing that hadn't been learned, but today your secretary learned of the king's name. It was the same as his father's--Masou.

CLUE( ) Masou K., a young man age 25, had come to the police station. His clothes are torn and he looks rather dirty and ragged. His manner appears to be very anxious and furtive. When asked why he is at the station, Masou explains to the police that he is hiding from "them". Masou then becomes quite angry and demands police protection. The police, however, feel Masou needs a different type of protection, and are forced to put him in custody. As Masou is taken away, he shouts something about this being a fine way to treat a king. Because of Masou's rather unusual behavior, the police have felt it necessary for Masou to see you.

CLUE( ) When Masou enters your office, he is still dressed in the same dirty rags as when he entered the police station. However, you notice the clothes seem to be a very unusual type and as Masou passes by you notice that the material appears to be that of a foreign substance. Masou still conducts himself in quite a regal air as he sweeps into your office. He is still quite insistent that he is "king of his country". When asked why he is here, he responds by telling you it is

to escape "them". When asked who "them" are, he says they are the ones who are out to get him as they are jealous because he is now a king. All this Masou tells you in a vague apprehensive way looking all around your office as he does so.

EVALUATION

CLUE( ) You are a clinical psychologist (almost) and as part of your master's thesis, you are told you must correctly diagnose and recommend a proper course of action for Ron M., a person who has just been admitted. You are not allowed to see Ron, but must go solely on his personal history. Good luck. Ron is a person with above average intelligence. He seems to be aware of amenities and to affirm to the moral code. Frequently he demonstrates superior intelligence and other assets and will succeed brilliantly for a while in work, in studies and in all human relations. But then he will repeatedly fail.

CLUE( ) Ron appears to learn nothing important from experience, yet he is quite familiar with the correct ethical criteria. He claims allegiance to such criteria and can in words formulate excellent rules and plans for himself to follow. Yet, he does not seem to be simply lying, or at any rate to be quite aware that he is lying, or even to grasp emotionally the essence of what is falsehood. Ron expresses normal reactions (love, loyalty, gratitude, etc.) with most impressive appearance of sincerity and depth, but the emotional ties and the attitudes he claims fail to deter him from deed that continually contradict his verbal "profession" often the conceivable temptations that appear to underlie his failures and socially self-damaging deed are extremely trivial, scarcely sufficient to prompt more than a whim if any positive impulse at all. Yet they evoke actions that cause the loss of fortune and the respect of friends, the destruction of family life, and repeatedly bring about the necessity of his confinement in jails and psychiatric institutions.

CLUE( ) The first thing you notice is that Ron is quite often known to commit aggressive antisocial acts. Ron's personal history illustrates this quite well. It seems that Ron has been arrested some seventy or eighty times. As a child, he continually skipped school yet neither punishment nor reasoning influenced his conduct. After having always been caught for petty thievery, or truancy or other antisocial acts, Ron would always seem to understand that he had done wrong and would solemnly agree never to repeat the errors that were causing him and his family so much sorrow. His stated resolutions reflected good judgement, insight, and the utmost candor. Despite this, his maladjustments continued.

CLUE( ) It is difficult to account for Ron's failures that seem to give themselve to impulses no more compelling than a trivial whim. However effective Ron may show himself to be over a limited period, when given sufficient time he will always prove himself inadequate. This he seems to accept in a very passive way, being quite unconcerned about his unusual behavior. Being quite puzzled over all of this, you continue reading to discover specific histories of Ron's failures.

CLUE( ) Well, the evidence is in, and your conclusion is finally made. You conclude that Ron suffers from a specific type of personality disorder and that it will take intensive psychotherapy to remove this personality disorder.

CLUE( ) Those who dealt with Ron came, in time, to feel that such a continual pattern of misbehavior must differ profoundly from ordinarily motivated rebellions. After Ron was old enough to drive, his father bought him a new car in hopes that it would influence him favorably. Not long afterward, while out driving he parked the new car, crossed the street, and took possession of a battered and inferior vehicle which he later abandoned in the country after a minor accident. Soon after this, Ron was apprehended by the police. Also, Ron developed the habit of leaving his parent's home at the onset of any whim. He expressed strong natural affection for both parents and was most convincing when he spoke of being willing to do anything to avoid causing them sorrow or distress. Nevertheless, after saying he was going down to the drugstore or perhaps to a movie he would sometimes not return and send no word to his parents until he was again in the the hands of the authorities.

EVALUATION

CLUE( ) At the hospital, Bob was at a loss to explain the means by which his persecutors operated as they seemed to, but he had no doubt of the verity of all he reported. He said that his psychic power of hearing was on the increase and that he wished to preserve and exercise it because it warned him of his enemies intentions. As he spoke, his speech showed some fragmentation, with occasional blocking that was related to his auditory hallucinations. His visual hallucinations seemed to persist and be quite vivid. The broken speech patterns, hallucinations and other actions lead you to conclude that Bob is completely psychotic.

CLUE( ) Some three months before admission, the patient complained to his father that a certain woman was pestering him psychically robbing him of his ideas, and interfering with his plans. He said that she had thrown a psychic spell over him which enabled her to see him in the dark, to read his mind at a distance and tune in on his thoughts. Because of the spell, he also had psychic powers. He thought it strange that everyone else could not see them at mealtime, even when he pointed them out' but this only confirmed his beliefs in his psychic powers. The things Bob heard disturbed him greatly, and he became increasingly irritated that his family seemed to hear none of this, and kept insisting that they listen. Bob's behavior became progressively worse until he finally rushed over to the neighbors house and started banging on the neighbor's door. The police handled it from there.

CLUE( ) An unmarried store clerk, twenty-two years of age and named Robert H., was brought to your hospital in handcuffs by the police, who had been called because the patient's sudden explosion of violence in which he swore to settle accounts with a neighbor woman. His parents dated the onset of the illness to a period, two years earlier, when their son became suddenly quite busy and seclusive. While in high school, Bob bragged of the great things he was to do after college. Financial setbacks, however, forced Bob out of the running and forced him to get a job.

CLUE( ) You conclude that the delusions of persecution, the hallucinations, the broken speech patterns, the disoriented and disorganized thinking, and the eventual psychosis are all related to a thought disorder, and that treatment will involve the removal of this thought disorder.

CLUE( ) One evening at the dinner table, about six months before admission to the hospital, Bob astonished his family by pushing his plate away and saying angrily, "I'm getting fed up with all this spying". He then announced that his fellow workers were all watching him and discussing him in little knots that broke up as soon as he approached. His father discovered later that his son's fellow workers had indeed been

watching and discussing him, because he had become uncommunicative, was muttering to himself and would sometimes interrupt a controversial discussion to say that it all was being taken care of. At home, the patient kept the blinds down in his room--even in daylight--and covered the basement window near his bench with soap. He seemed to his family more preoccupied now than angry, and he frequently stopped eating to stare into a corner or to listen.

CLUE( ) Bob's first reaction to this disruption was to adjust to a new life and new friends. After a few months, however, he joined a church and took an active part. At home, he began talking a great deal about social betterment and the spiritual improvement of mankind. His speech became tiresome and repetitious to the family who reacted in a bored way. Bob reacted to this with an angry silence and an unexplained preoccupation that led up to his climatic outburst. Soon after this preoccupation began, Bob gave up his church activities and friends and devoted almost all his spare time to solitary reading. He spent hours also working in a small workshop downstairs. He worked litfully at his bench in the basement, making wooden models of houses and other buildings whichewere not easy to identify. When he was asked what he was trying to do, his only answer was "You'll see." Once he said something about "changing the face of the nation".

EVALUATION

CLUE( ) Several more sessions with the proper use of a hearing aid and Andy's communication level and hearing have been restored to normal. When told that his hearing will probably get worse, Andy agrees to prepare by going to s special school for the deaf. Since Andy will be many miles from his former hime, he feels more at ease now and will be able to relate to you who "they" are. It seems that Andy was the leader of a gang who would steal auto parts late at night. With the oncoming hearing loss, Andy decided to quit the gang. Soon thereafter several of Andy's gang were apprehended by the police. The remaining club members mistakenly thought Andy had "sold out" to the police which is why he quit. They therefore all agreed they would "get" Andy and make him pay for being a "fink". This is why Andy was running, and he was afraid to tell either you or the police because he was afraid of the punitive retaliation the police might take on him because he was a member of the gang.

CLUE( ) Andy G., a young man, was arrested last Thursday when he physically assaited a policeman. It seems that the policeman saw Andy crouched in an alley looking out onto the street. The policeman slowly approached Andy then when he was within a foot or two of him he asked Andy what he was doing. Getting no response from Andy, the policeman approached him still closer and touched him upon the shoulder. Andy spun quickly around and started assalting the officer. Before this had gone on for more than a few seconds, a second policeman spotted the situation and assisted the first policeman in bringing Andy under control and taking him to the station.

CLUE( ) At the police station, Andy appeared to be quite frightened. He tells you that he was unaware that anyone was behind him and that when the policeman touched him on the shoulder, he thought it was one of "them". Upon further investigation, the police find Andy only seems to pay attention to about one-half of what they are saying and that at times the police are unable to understand what Andy is saying. About the only thing the police can understand from Andy's speech is that "they" are the people out to get him. Because Andy's behavior has so baffled the police, they have decided that Andy should see you.

CLUE( ) When Andy enters your office you encounter a rather tough looking individual that is characteristic of the neighborhood from which Andy comes. As the first few sessions occur, you begin to notice a pattern of behavior that appears quite "classic" in its symptomology. Andy seems to be unable to successfully understand all that is said to him. His thinking appears autistic in the sense that at times he will understand you and other times he will not pay any attention to your questions. His speech patterns also appear to be somewhat

broken. He will try to say a sentence, then his voice will fade out and occasionally come in much too loud. Whatever the case, too loud or too soft, he rarely seems able to talk in a normal voice. Finally his talk of "them" seems to be a major problem. Andy seems fairly sure "they" will get him sooner or later,but he refuses to tell you who "they" are. You are tempted to label his behavior as delusions of persecution. All of these symptoms appear to lead to your first conclusion, on in which you later find to be incorrect.

CLUE( ) Your first conclusion that of Andy'a behavior being that of a paranoid schizophrenic is incorrect. This you found out last week when you conducted several tests and found out your suspicions about Andy were correct. Talking one day to Andy you found out that while talking close to Andy he answered, but at a distance he was unable to. Also when facing Andy he would understand you, but facing away he usually wouldn't. A hearing and speech test confirmed your suspicions. Andy had been hard of hearing for quite a while now. It all started a year ago when he was in a fight and got his ears "boxed in". Since then his hearing has gotten progressively worse. Andy, being the leader of a local gang, was too proud to say anything and his parents couldn't afford to have him treated. In desperation, Andy learned to lip read which explains why he was able to understand those that faced him but still his hearing loss continued. As Andy's hearing decreased, he became unable to tell when his voice was loud enough to be heard. As a result his voice became louder and softer without him realizing it and thus gave the impression of broken speech patterns--another characteristic of schizophrenia. Andy became more and more frightened when his hearing loss increased and was afraid to tell anyone. All this Andy relates in a tearful way. So your first conclusion was wrong.

EVALUATION

CLUE( ) Now everything comes quite clear to you and you are able to make the correct diagnosis quite easily. All the classic symptoms are present, a psychoneurotic disorder whose specific reaction is related to "la belle indifference", unconscious conflict, and relief from symptoms when a placebo is administered. Behavior is represented by a term used by the ancient Greeeks. What was the term used? Oh, yes, you remember now, they called it---hysteria.

CLUE( ) The shaking that Bill undergoes appears to be anxiety so the first piece of the "puzzle" is complete. Next, Ann approaches Bill and appears to examine his legs and arms quite closely. After conducting what is like a medical report. As she looks at the chart it doesn't look good. As she approaches Bill, she starts to cry. Apparently Bill's health has taken a turn for the worse. Reluctantly, Ann shows Bill the chart "telling" him things don't look good. Bill, however, seems rather unconcerned and in fact he seems almost to enjoy his position. How can this be?

CLUE( ) You are at a party and your reputation as a psychologist is world famous, especially in the area of diagnosis. As the party talk turns to psychology and someone mentions your name. One of the guests claims that by using any "classic" reaction in pantomime, youwwould be able to successfully diagnose the problem. Another agrees. They all turn to you and suddenly you realize that your reputation is on the line. You claim you're not sure, but will be "happy" to try. One of your rival psychologists puts a specific disorder and a reaction on a piece of paper and shows it to Bill and Ann, people who are to act out the disorder. The people clear back, and Bill and Ann enter from the kitchen. Bill is the one to have the disorder. When Bill comes in he looks at Ann; Ann gives a sour face as she looks at Bill. Bill immediately "picks up" Ann's sour face and displays it to all. A learned behavior, it appears, behavior is learned. Still, the fact that Bill picked it up from observation is something. Suddenly, Bill starts to shake all over.

CLUE( ) At this point you are able to conclude the first part of your diagnosis. It is that Bill suffers from a psychoneurotic disorder. Now the specific reaction. You look closely. Bill appears to be ill, yet he relies on his fate to be the same. Now Ann appears to administer a drug to Bill that is suppose to cure him, and behold, it works in the complete opposite--Bill jumps up and runs around and around. He has full control of his arms and legs. As Bill runs around Ann turns aside and is trying to "say" something to you. What was that? Oh, yes, now you understand. Her wonder drug that was aedministered to Bill was nothing more than a sugar pill. The old placebo trick; works everytime (almost anyway).

CLUE( ) several times more and Bill's problem seems to be clearer . He is obviously displaying "la belle indifference". Now you are armed with two important clues, one involves anxiety and the other is Bill's seemingly apparent acceptance of fate (la belle indifference) upon "hearing" a bad medical report. In addition, it appears that th problem is related to a voluntary activity, yet from the acting you gather that the symptoms that he displays are the resolution of an unconscious conflict over which he has no control. Ah, yes, the plot thickens.

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