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INFLUENCE OF CLINICIANS'
AND CLIENTS' RELIGION
ON DIAGNOSIS OF MENTAL ILLNESS

by

Robert Dombey Wadsworth

A thesis submitted in partial fulfillment
of the requirements for the degree
of
MASTER OF SCIENCE
in
Psychology

Approved:

UTAH STATE UNIVERSITY

Logan, Utah

1978

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Robert D. Wadsworth

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ABSTRACT

Influence of Clinicians' and Clients' Religion
on Diagnosis of Mental Illness

by

Robert Dombey Wadsworth, Master of Science

Utah State University, 1978

Major Professor: Dr. Keith T. Checketts
Department: Psychology

Theorists propose that because psychodiagnosis is not a completely objective procedure, it is influenced by sociocultural values. It was hypothesized that religion might be one aspect of sociocultural values which influences psychodiagnosis. The present study sought to determine, by using a clinical analogue design, whether psychologists' formal diagnoses of clients are biased by their present religious affiliations and activity levels, their religious upbringing (assessed by their fathers' and mothers' religious affiliations and activity levels), the clients' religious affiliations and activity levels, or interactions between psychologist and client religious variables. Questionnaires were sent to 228 psychologists licensed to practice in Utah, inviting them to participate in the study. Items eliciting the psychologists' religious characteristics were disguised amidst irrelevant items on the questionnaire. Respondents were sent four case reports which were varied on the religious affiliation (LDS vs. Other) and activity level (Active vs. Inactive) of the fictitious clients. The reports included identifying data, referral reason, background information, behavior

observations, psychological test interpretations, and summary. Subjects diagnosed the reports according to the typology of the American Psychiatric Association's DSM-II. Usable data were obtained from 60 psychologists. The cases elicited a wide variety of diagnostic labels. Data were arranged in 56 frequency count tables (14 hypotheses on each of the four cases), and were analyzed with the chi-square test, with $\alpha = .05$. Two significant relationships between religious variables and diagnosis were found. Because of the number of analyses performed, these were viewed as chance findings. In addition, the distributions of diagnoses in eight categories across all four cases were visually inspected according to the religious affiliations of the clinicians making the diagnoses and the clients being diagnosed. This procedure also failed to produce evidence of religious bias. It was concluded that formal diagnoses of clients made by psychologists in Utah are not influenced by psychologist or client religion, or by interactions between the two, when diagnoses are compressed into broad categories.

(175 pages)

INTRODUCTION

General Statement of the Problem

This study is concerned with the effect of religion on psychodiagnosis. More specifically, it is an investigation of whether psychologists' formal diagnoses of mental patients or clients are influenced by the psychologists' religious affiliations, the psychologists' levels of activity within their religions, the psychologists' religious backgrounds, the patients' religious affiliations, the patients' levels of activity within their religions, and/or interactions between psychologist and patient religious variables.

Szasz (1970) has suggested that the diagnosis of mental illness is not an objective, scientific procedure, as is the medical diagnosis of physical disease. Rather, he asserts that psychodiagnosis is an inherently ethical process, which involves comparing the mental patient's behavior with sociocultural values and norms. Thus, because psychodiagnosis necessarily involves value judgments, it would be expected that the diagnostician's value system and the degree to which the patient deviates from the diagnostician's values would influence the diagnostic process.

Working from this type of theoretical base, researchers have sought to identify value-relevant variables which could influence psychodiagnosis. In other words, investigators in this area have attempted to define those aspects of clinicians' and patients' demographic characteristics and attitudinal inclinations which affect psychodiagnosis and other psychiatric evaluations and decisions. These types of variables are irrelevant to

patients' psychopathology and symptomatology. Thus, any influence which these variables exert upon the diagnostic process may be appropriately labeled extraneous. If such extraneous influences operate in a systematic manner and direction, such that psychologists with certain characteristics consistently misdiagnose patients with certain characteristics in a given direction, then it may be said that these variables "bias" psychodiagnosis.

Research efforts aimed at identifying sources of diagnostic bias have typically begun with ex post facto studies, which are designed to establish the presence or absence of a relationship between a certain demographic variable and diagnostic variables. For example, Hollingshead and Redlich (1958) extensively surveyed psychiatric treatment facilities in the New Haven, Connecticut area, and found that patient socioeconomic status was systematically related to diagnosis. However, the results of studies such as this one do not lend themselves to causal explanations. One cannot conclude on the basis of Hollingshead and Redlich's findings that patient social class biases clinicians when they assign diagnoses. It is possible that there are true differences in the incidences of various forms of psychopathology across social classes. It is also possible that mental illness alters one's social status after it occurs. Finally, it may be that the relationship found by Hollingshead and Redlich pertains only to patients in treatment, and that if it were possible to study all cases of psychological disorder, no relationship between social class and mental illness would be found.

Thus, ex post facto studies must be supplemented with clinical analogue experiments, in order to support the contention that the variable in question does in fact bias psychodiagnosis. In this type

of study, mental health professionals are asked to diagnose or otherwise evaluate diagnostic materials ascribed to fictitious patients. Alternate forms of the materials vary only on the demographic characteristic under investigation. In the case of social class, a host of clinical analogue studies have provided convincing evidence that patient social class biases psychodiagnosis (see "A Review of the Literature").

Although the identification of biasing influences on psychodiagnosis is an interesting endeavor, one must ask whether it has any practical utility. It seems to this author that it does. Biased psychiatric labels can lead to profound consequences for patients, for a number of reasons. First, the diagnostic judgments which are made about a patient affect the course of his progress through the mental health system (Di Nardo, 1975). Thus, inaccurate diagnoses may lead to less than optimal treatment for patients. If diagnostic bias serves to misdiagnose a particular group of patients, this group will be victimized by a form of discrimination regarding treatment disposition. Second, psychiatric labels are stigmatizing (Szasz, 1970). The more severe the diagnosis, the greater the stigmatizing effect of the label. If a particular type of patient tends to be diagnosed unusually harshly, he will bear an unnecessary social stigma throughout much of his life. This stigma is likely to interfere with normal social adjustment and acceptance. Finally, there is some evidence that labels initiate self-fulfilling prophecies (Rosenthal & Jacobsen, 1968). That is, our label of someone affects our behavior toward that person (Szasz, 1970). Our behavior toward the person in turn affects his behavior toward us. More specifically, we tend to behave toward a person as if the label which he bears is accurate. The person, in response to our expectancy,

behaves in a manner which fits the label. Thus, if someone is inaccurately labeled "schizophrenic," we expect him to act in a schizophrenic manner, and we treat him accordingly. In order to meet our expectations, he begins to exhibit schizophrenic behavior. The inaccurate diagnostic label has, in effect, created psychopathology, and has thus worsened the patient's prognosis (Waxler, 1974). As Kiev (1972) states, "Assignment of the patient to a particular role evokes a specific response from the group, which may in turn have significance for the development of the patient's mental state" (p. 81).

The arguments presented above lead to the conclusion that if psychiatric diagnoses are biased against certain groups, members of those groups will suffer severe social consequences. Thus, in a society which values social equality, it is vitally important that bias be eliminated from psychodiagnosis. As long as the psychodiagnostic process involves a strong element of value-laden subjectivity and thus cannot be completely objectified (Szasz, 1970), control of diagnostic bias can best be achieved by training clinicians to be aware of and to obtain mastery over various sources of bias. The first step in this process is the identification of sources of diagnostic bias through research (Chasen, 1974; Di Nardo, 1975). As biasing variables are identified, clinicians can begin to understand their own biases (Hollingshead & Redlich, 1958, p. 346). Professionals have suggested that clinical training programs should include attention to trainees' understanding of their demographic backgrounds and their attitudes, with the hope that this understanding will reduce diagnostic biases (Harrison, McDermott, Schragar, & Showerman, 1970; Levy, 1969). However, this hope may be somewhat naive: development of training

approaches designed to reduce diagnostic bias among trainees will probably require extensive research. At the present, there is still work to be done in identifying various sources of bias in psychodiagnosis.

One possible source of bias which has not been adequately studied to date is religion. Soddy (1962) states, "The prevailing religion or ideology of a community may be regarded in many senses as both an expression and a source of its value system" (p. 64). Taking this argument to the level of the individual, a person's religious affiliation and attitudes are a part of his value system. From the argument that psychologists' value systems influence their diagnoses of patients, one can then deduce that psychologists' religious orientations would be expected to bias their diagnoses. Theoretical support for the validity of this deduction is found in Soddy's statement, "Apparently, the specific positions that people take up towards mental abnormality are determined very largely by cultural and religious attitudes" (p. 162).

So, at a theoretical level, there is reason to hypothesize that religion may influence diagnostic evaluations. Ex post facto studies support this contention. Although assignment of patients to a few broad diagnostic categories does not seem to be related to patient religion (Eichler & Lirtzman, 1956; Jennings, 1972), patient religion does appear to be related to diagnosis when diagnosis is examined in either greater breadth (Roberts & Myers, 1968, pp. 139-147) or greater specificity (Weintraub & Aronson, 1974). While it appears that there is a relationship between patient religion and psychodiagnosis, the reason for this relationship cannot be deduced from the studies referred to in this paragraph. One explanation is that clinicians are biased in their diagnoses of patients of certain religious groups.

It is also conceivable that members of certain religious groups are more prone to exhibit certain forms of psychopathology, or that the type of behavior which is likely to be brought to the attention of mental health professionals differs across religious sects. One purpose of the present study is to clarify this issue by determining whether psychologists' diagnoses of patients are biased by patient religion. Patient religion is divided into two aspects: religious affiliation or sect, and level of religious activity.

The influence of clinicians' religion on their diagnoses of patients has been examined in only one study (Weintraub and Aronson, 1974). No such influence was found. However, because these authors failed to support this finding, the question of whether clinicians' religion biases their diagnoses remains open. The present study attempts to shed additional light on this issue. As with patient religion, psychologist religion is divided into two aspects: religious affiliation and level of religious activity.

Religious orientation and religious bias may be categorized as attitudes. The most widely accepted definition of an attitude is "an enduring system that includes a cognitive component, a feeling component, and an action tendency" (Freedman, Carlsmith, & Sears, 1970, p. 246). The behavioral component ("action tendency") is presumably a result of the cognitive and feeling components. The behavioral aspect of a psychologist's religious bias, that is, diagnostic bias, may then have two sources: A cognitive source and an affective or feeling source. The cognitive source of religious bias may be represented by a psychologist's current religious stance, which is presumably the result of a more or less conscious, cognitive decision which he makes regarding his

life style. On the other hand, the affective source can probably be found in the psychologist's religious background: the religious influences present in his home when he was a child. This early religious training will be manifested as the deep-seated affective component of the psychologist's religious attitudes. Thus, if psychologists exhibit religious bias in their diagnostic practices, some of this bias should be accounted for by their religious background. Empirical support for this hypothesis may be found in a study by Marx and Spray (1972). These researchers found that psychotherapists in private practice and their patients tended to select each other on the basis of similar religious orientations. The therapists' religious backgrounds, as measured by their fathers' religious orientations, were a much stronger factor influencing this selection process than their current religious affiliations. The authors speculated that "in differentiating and evaluating prospective patients, therapists are more concerned with the affective legacy and residues of religio-cultural traditions than with their cognitive or intellectual dimension" (p. 425). In the present study, this idea will be extended to the realm of psychodiagnosis, by investigating whether psychologists' religious backgrounds, as measured by their mothers' and fathers' religious affiliations and activity levels, bias their diagnoses of patients.

Finally, the question of whether psychologists' religious characteristics (their, their mothers', or their fathers' religious affiliations and activity levels) interact with their patients' religious characteristics (sect and activity level) to produce a diagnostic bias has not been addressed in the literature. The present study is also an attempt to answer this question.

The present study utilizes a clinical analogue design, in which psychologists are asked to assign formal diagnostic labels to fictitious patients depicted in case reports. The task is designed to represent an experimental analogue of the clinical task of integrating case history data, behavioral impressions, and psychological test interpretations into a formal diagnosis. If diagnosis is found to vary systematically with certain aspects of psychologist or patient religion, then it can be stated that religious bias caused the variations in diagnosis in this experimental situation.

Hypotheses

The general objectives stated in the previous section are translated into 14 specific hypotheses for investigation. For consistency with the logic of statistical inference used in this study, the hypotheses are stated in the "null" form. Key words are underlined to aid the reader in differentiating between the various hypotheses.

Hypothesis 1. There is no difference in diagnoses made by clinicians of different religious affiliations.

Hypothesis 2. There is no difference in diagnoses made by clinicians whose fathers were of different religious affiliations.

Hypothesis 3. There is no difference in diagnoses made by clinicians whose mothers were of different religious affiliations.

Hypothesis 4. There is no difference in diagnoses of clients of different religious affiliations.

Hypothesis 5. There is no difference in diagnoses made by clinicians of different religious activity levels.

Hypothesis 6. There is no difference in diagnoses made by clinicians whose fathers were of different religious activity levels.

Hypothesis 7. There is no difference in diagnoses made by clinicians whose mothers were of different religious activity levels.

Hypothesis 8. There is no difference in diagnoses of clients of different religious activity levels.

Hypothesis 9. There is no interaction between clinicians' religious affiliation and clients' religious affiliation affecting diagnosis.

Hypothesis 10. There is no interaction between clinicians' fathers' religious affiliation and clients' religious affiliation affecting diagnosis.

Hypothesis 11. There is no interaction between clinicians' mothers' religious affiliation and clients' religious affiliation affecting diagnosis.

Hypothesis 12. There is no interaction between clinicians' religious activity level and clients' religious activity level affecting diagnosis.

Hypothesis 13. There is no interaction between clinicians' fathers' religious activity level and clients' religious activity level affecting diagnosis.

Hypothesis 14. There is no interaction between clinicians' mothers' religious activity level and clients' religious activity level affecting diagnosis.

This study is conducted in the state of Utah. Approximately 2/3 of the population of Utah are affiliated with the Church of Jesus Christ of Latter-day Saints (LDS); the remaining 1/3 of the population are divided among various other religious sects and no religious affiliation whatsoever. To facilitate data analysis, "religious affiliation," as referred to in this study, is dichotomized into "LDS" and "Other."

Those expressing no religious preference are arbitrarily placed in the "Other" category. Religious activity level, whether referring to psychologists, their mothers, or their fathers, is dichotomized into "Active" and "Inactive" categories (see "Materials and Measures").

Expectations. Regarding the effect of client religion on diagnoses, previous research suggests that Jewish individuals tend to be labeled neurotic, Catholics are often diagnosed as alcoholic (Roberts & Myers, 1968, pp. 139-147), homosexuality is noted more often among Protestants and Catholics than among Jews, and frigidity is a more common label for Jewish women than for Protestant women (Weintraub & Aronson, 1974). However, the possibilities of diagnostic differences between LDS and non-LDS clients and between religiously active and inactive clients have not yet been addressed in the literature. Therefore, this study is undertaken without expectations regarding the directionality of any possible effects of client religion on diagnosis.

Similarly, there is no previous research regarding the effects of psychologist religion and religious background (LDS vs. Other, active vs. inactive) on psychodiagnosis. However, it might be speculated that LDS psychologists, due to the strict moral code of their religion, would expect more righteous behavior from individuals in general than would non-LDS psychologists, and would thus be more severe in their evaluations of deviant behavior.

In general, when researchers have studied interactions between clinician and client variables as they affect psychiatric evaluations, they have found that the evaluations tend to be lenient when clinician and client are similar on the variable in question, and the evaluations tend to be severe when the clinician and client are discrepant on the

variable in question. Thus, it would be expected that when a psychologist diagnoses a client whose religious sect and activity level are the same as his own, he would tend to assign a relatively mild diagnosis. On the other hand, when a psychologist and a client differ on religious variables, the diagnosis would be expected to be harsh. However, a few researchers have reported a sort of reverse discrimination. The reason for these discrepant findings remains unclear. Nevertheless, it is possible that if psychologist and client religious characteristics are found to interact significantly in affecting psychodiagnosis, the direction of the effect could be opposite from that predicted above. For example, if an LDS psychologist were diagnosing an LDS client with a drinking problem, the LDS religion's taboo on alcohol consumption could lead the psychologist to diagnose the client more harshly than would be the case if either the psychologist or the client belonged to some other faith. In other words, LDS psychologists may hold very high expectations regarding the moral behavior of LDS clients, and thus may exaggerate the significance of relatively minor deviance from religious norms.

Definition of Terms

Activity level. The degree to which an individual participates in behaviors expected of members of his religious sect. For example, someone who attends church services frequently is said to be religiously active; someone who seldom attends church services is religiously inactive.

Affiliation. The religious sect of which an individual is a member (for example, LDS, Catholic, etc.).

Case. A real or fictitious patient or client, as depicted in a case report.

Case report. A report which summarizes psychological evaluations of a patient or client. It may include any or all of the following: background information (case history), the reason the person was referred for evaluation, observations of the person's behavior, and psychological test protocols and/or interpretations of psychological test protocols. The case reports used in this study include all of these items except psychological test protocols.

Client. An individual who is in contact with one or more mental health professionals for evaluation and/or treatment of psychological problems. Used synonymously with "patient."

Clinical analogue. A research procedure in which mental health professionals are asked to evaluate one or more fictitious clients. Fictitious clients may be presented in the form of audiotaped or videotaped interviews, psychological test protocols, or case reports.

Clinician. A professional in the field of applied mental health (for example, psychologist, psychiatrist, social worker).

Diagnosis. Unless used in a context referring to medical diagnosis or diagnosis in general, this term is used synonymously with "psycho-diagnosis."

Diagnostician. A mental health professional who, as part of his work, evaluates and/or formally diagnoses clients.

DSM-II. A manual which outlines and describes the diagnostic nomenclature most often used by mental health professionals in the United States. Full reference: American Psychiatric Association.

Diagnostic and statistical manual of mental disorders (2nd ed.). Washington, D.C.: Author, 1968.

Evaluation. Any formal judgment made by a clinician about a client, including formal diagnostic labeling, prognostic ratings, symptom checklists, Likert scale ratings of symptomatology, overall adjustment, or degree of disturbance, treatment recommendations, etc.

Ex post facto. A research design in which records on a defined group of clients are gathered and relationships between different variables included in those records are examined. For example, one might search the records of clients who were admitted to a certain mental hospital during a given time interval to determine whether lower social class clients were diagnosed "psychotic" more frequently than upper class clients.

LDS. A religious sect called The Church of Jesus Christ of Latter-day Saints (Mormon). Or, referring to a member of this religious sect.

Other. When capitalized, refers to a religious sect other than the LDS faith, or to a member of such a sect.

Patient. An individual who is in contact with one or more mental health professionals for evaluation and/or treatment of psychological problems. Used synonymously with "client."

Psychodiagnosis. In the context of this study, refers to the procedure of assigning formal diagnostic labels (for example, "Schizophrenia, simple type" or "Depressive neurosis") to clients.

Psychologist. As used in this study, refers to a clinical or counseling psychologist; that is, a psychologist who is licensed by his or her state to diagnose and treat psychological problems.

A REVIEW OF THE LITERATURE

Introduction

Numerous researchers in the mental health professions have devoted extensive time and effort to the task of identifying extraneous variables which exert biasing influences on the process of psychodiagnosis. Before reviewing the mass of research literature which exists on this topic, one must ask why so many professionals have hypothesized that such biasing factors in fact exist. Presumably, these researchers assume that there is an ideal form which the process of diagnosis should take, and that, for some reason, diagnosis in mental health fields fails to meet this standard. If this presumption is accurate, one must ask what the process of diagnosis should be, and how and why psychodiagnosis differs from the ideal.

To begin to answer the first part of this question, perhaps a dictionary definition of the word "diagnosis" is in order. According to Webster's Seventh New Collegiate Dictionary (1963), the primary definition of "diagnosis" is "the art or act of identifying a disease from its signs and symptoms" (p. 229). This definition seems to apply primarily to a disease model, such as that used in the medical profession, which assumes some form of pathology underlying the signs and symptoms which a patient presents. Whether a disease or medical model can be appropriately applied to the diagnosis of functional psychiatric disorders is a hotly debated question ("functional" psychiatric disorders are those forms of mental illness for which underlying organic pathology does not exist or has not yet been identified).

Even if one does not abide by a "disease" concept of abnormal behavior, a formal diagnostic label should be a shorthand symbol which represents a given set of signs and symptoms. When a patient must be diagnosed, the clinician (ideally) uses whatever tools and techniques he has at his disposal to determine which signs and symptoms the patient is presenting. He then assigns the diagnostic label which best summarizes the patient's signs and symptoms. To the extent that the clinicians' techniques and tools are objective, valid, and reliable, and to the extent that there is little overlap of signs and symptoms between diagnostic categories, the diagnosis will accurately reflect and summarize the patient's problems.

Unfortunately, in the realm of diagnosing emotional disorders, the above conditions are seldom met. The tools used in psychodiagnosis (psychological tests, psychiatric histories, mental status examinations, behavior observations, etc.) are not completely objective, valid, and reliable: Rather, they require varying amounts of subjective judgment on the part of the diagnostician. McDermott, Harrison, Schragger, Lindy, and Killins (1967) state, "There are no standard tests for mental illness such as the X-ray and blood test provide for our medical colleagues In our work the clinician himself is the diagnostic instrument" (p. 555). Thus in the intermediate step between the collection of diagnostic data and the assignment of a formal diagnosis, there is considerable leeway for the clinician to exercise his subjective judgment. As a result, the diagnosis reflects not only the patient's actual problems, but also the judgment of the diagnostician. To the degree that this judgment is a distortion of reality, the diagnosis will be inaccurate. Di Nardo (1975) arrived at this same conclusion, based on

his study of two variables which bias clinical judgment. He asserted, "Studies such as this one are providing converging lines of evidence that indicate that a clinician's assessment of a patient may not always represent the clinical reality presented by the patient" (p. 367).

Hollingshead and Redlich (1958) support this argument with the following statement:

A diagnosis arises from a number of conditioning factors: the experiences of the patient, the training and techniques of the doctor, as well as the social values of the communityOur data show that there are widely varying responses on the part of physicians to the same varieties of behavior. (pp. 237-238)

Exacerbating this problem is the fact that psychodiagnostic categories are not "clean" with regard to symptomatology. A patient who seems to be displaying a given psychiatric syndrome typically will not exhibit all of the symptoms which are pathognomic for that syndrome. He will often exhibit some symptoms which suggest other syndromes. Some signs and symptoms are commonly found in more than one syndrome (for example, a depressive mood is the key feature of Involutional melancholia, Manic-depressive psychosis, Psychotic depressive reaction, and Depressive neurosis, and is often reported in a host of other syndromes). So, even after a diagnostician has collected his data and formulated his subjective impressions, considerable ambiguity regarding the correct diagnostic label may remain.

The principle conclusion to be derived from the above discussion is that diagnosing emotional disorders is not an objective procedure: the judgment of the clinician is an important factor contributing to the diagnosis. Whenever subjective judgments are made, there is the possibility of error. Thus, two different diagnosticians may arrive at different diagnostic conclusions about the same patient. If it is

possible to assume the existence of a "correct" diagnosis of such a patient, then at least one of the diagnosticians is committing an error.

Typically, one practitioner has the responsibility of arriving at a formal diagnosis of each patient who must be diagnosed. Due to the subjectivity involved in psychodiagnosis, it is possible that some patients will be diagnosed incorrectly. If diagnostic errors occur on a random basis, then, on the whole, no particular demographic subgroup of patients will be discriminated against (although on an individual level, diagnostic error certainly has profound implications). However, if a given type of diagnostic error is more likely to occur when a certain type of person is being diagnosed, or when a certain type of clinician is doing the diagnosing, then one can state that a diagnostic bias is operating. Rooymans, Schut, and Boeke (1972) theorize about how such a bias could occur. They believe that psychiatric diagnosis cannot be considered apart from the diagnostician, as he is a factor in the diagnostic process. He must select what he believes to be the important data from an overwhelming array of information: This involves rendering judgments. If this data selection is one-sided, he may see in the patient only what he expects to see. Thus, his diagnosis is biased by his preconceptions.

Having deduced that errors in psychodiagnosis are possible or even likely, one might ask why researchers hypothesize that such errors might be systematically related to demographic or attitudinal variables, that is, biased against certain groups, rather than distributed randomly. The reason for such hypotheses will be found in the brief review of pertinent professional opinion which follows.

A Review of Pertinent Opinion

A foundation for the hypothesis that there may be bias in psychiatric evaluations is found in the writings of Szasz (1968, pp. 22-30). Szasz argues that mental illness as an objective "thing" or disease is nonexistent. Rather, he believes that mental illness must be considered in relation to psychological, ethical, and legal norms. Making the statement that a given behavior is a "mental symptom" involves rendering a judgment: "Matching...the patient's ideas, concepts, or beliefs with those of the observer and the society in which they live" (pp. 23-24). Thus, in judging the presence or absence of psychopathology in a patient, the clinician must compare the patient's symptoms with what he believes to be normal behavior. The clinician's concept of normality, which may be influenced by a variety of demographic and attitudinal variables, in turn influences his judgments of patients. Szasz continues,

It does make a difference--arguments to the contrary notwithstanding--what the psychiatrist's socioethical orientations happen to be; for these will influence his ideas on what is wrong with the patient, what deserves comment or interpretation, in what possible directions change might be desirable, and so forth....Can anyone really believe that a psychotherapist's ideas concerning religious beliefs, slavery, or other similar issues play no role in his practical work? (pp. 26-27).

Clearly, Szasz implies that the answer to the last question should be "no." Soddy (1962) expresses a similar opinion by stating,

Mental health is associated with principles dependent upon the prevailing religion or ideology of the community concerned. Therefore any attempt to define mental health involves consideration of the religious and ideological setting. (p. 70)

Soddy believes that conceptions of mental illness as well as mental health are influenced by societal attitudes. He avers, "Apparently

the specific positions that people take up towards mental abnormality are determined very largely by cultural and religious attitudes" (p. 162).

Waxler (1974) reviewed studies which indicate cross-cultural differences in the types, rates, and outcomes of psychiatric disorders. She believes that these differences do not reflect differences in true rates of mental disorders, nor do they represent varying degrees of tolerance for deviance. Rather, she theorizes that societies respond differently to psychiatric illness once it occurs. Because psychiatric illness is a form of deviance from social norms, the evaluation of such disturbance is based on the norms of the patient's society. Abramowitz, Abramowitz, Jackson, and Gomes (1973) express similar sentiments by stating "It is perhaps inevitable that those entrusted by a society to make decisions about the psychological functioning of persons can do so only against a backdrop of moral and political considerations" (p. 391).

The conclusion that psychiatric judgments reflect not only the pathology of the patient but also societal norms was also made by Myers and Bean (1968). They assert:

As a deviant, the mental patient must be cared for, but the society also believes it must be protected from him. Thus, psychiatric therapists and treatment centers function as agents of social control. (p. 14)

Thus, theorists seem to concur on the idea that mental health clinicians bring their own value systems to the diagnostic process. Their value systems in part reflect the cultures in which they live. Since the evaluative process contains room for subjective judgments, one would expect such judgments to be influenced by clinicians' (and thus, the culture's) values.

A related argument may be borrowed from the discipline of sociology to further stress the importance of individual values in clinical

decisions. Sociologists have spoken of a concept called status or value homophily. Homophily has been defined as "observed tendencies for similarity between the group-affiliation of friends or between their positions within a group" (Kandel, 1966, p. 641). In other words, we all tend to choose those individuals who are in some way similar to ourselves as our friends and associates. Because this is stated as a general principle of human behavior, it may be applied to a clinical setting. With regard to the therapist-patient relationship, homophily has been defined as similarities between certain crucial characteristics of psychotherapists and their patients which are necessary to the therapeutic relationship as well as to the therapeutic process (Marx & Spray, 1972). That is, because the therapeutic relationship is one in which two individuals must interact, it would be expected that therapists and patients would select each other on the basis of similar characteristics. Marx and Spray believe that this selection process is beneficial, in that it allows for good therapeutic communication: similar individuals will understand each other better than dissimilar individuals.

However, it would appear that there is also a dark side to the process of homophily. The majority of psychotherapists fall into the upper socioeconomic strata of our society, and their training necessitates that they be well educated. Thus, they would be expected to select primarily well-educated, well-to-do clients. In effect, this selection process acts as a bias against the lower classes, as they would tend to be excluded from therapy.

The above argument refers to situations in which therapists and patients are free to choose one another (for example, private practice). In a situation in which this natural process of mutual selection is

frustrated, for example, an institutional setting, homophily will not be directly observable. Yet it seems to this author that whatever attitudes, feelings, or sentiments underly the homophilic process would remain, even though their direct expression is blocked. It seems entirely plausible that these sentiments would be displaced into more subtle modes of expression. One such area of expression is psychodiagnosis. As an example, let us assume that a new admission to a mental hospital is arbitrarily assigned to a particular clinician for initial evaluation. The clinician soon discovers the patient to be quite dissimilar to himself in some respects, such as socioeconomic status, race, religion, sex, education level, and/or political attitudes. If the concept of homophily is valid, the clinician's natural tendency would be to shy away from the patient: to associate with him as little as possible. However, the circumstances of his employment prohibit such behavior: The clinician's job is to diagnose the patient. Thus, it would be expected that a sort of "symptom substitution" would occur: the clinician's tendency to avoid the patient would be expressed in some other way. One form of expression would be an unusually harsh diagnosis: a diagnosis which connotes more pathology than the patient actually exhibits. The diagnosis of the patient would be biased: it would be affected by the clinician's sociocultural characteristics and values.

Further support for the notion that severe psychiatric diagnoses may be used by the clinician to subtly degrade certain individuals is found in the writings of Szasz (1970). He claims, "Wherever we turn, there is evidence to substantiate the view that most psychiatric diagnoses may be used, and are used, as invectives: their aim is to degrade--and, hence socially constrain--the person diagnosed" (p. 204). The reasoning

presented thus far suggests that the more the clinician and patient differ with regard to demographic characteristics, attitudes, value systems, religious beliefs, and so forth, the greater the tendency on the part of the clinician to try to constrain or alter that patient's behavior. Because severe diagnostic labeling is, according to Szasz, a form of social constraint and degradation, it would be expected that a clinician would be unduly harsh in his diagnosis of patients who differ from him on certain crucial dimensions.

To summarize, psychodiagnosis is not an objective procedure. At various points in the diagnostic process, the diagnostician is required to make judgments. When interviewing a patient, the diagnostician must judge which content areas are relevant to the patient's problems, and thus he must judge which areas to pursue and emphasize. In interpreting test results, the diagnostician must select from a mass of raw data the information which he considers important. He must again judge which data are relevant when arriving at a diagnostic conclusion from the mass of interview impressions and test interpretations at his disposal.

The opportunity for human judgment implies the opportunity for human error. Errors in judgment may occur at any point in the diagnostic process. Professional opinion drawn from the fields of psychology, psychiatry, and sociology suggests that such errors do not occur on a random basis. Rather, it is suggested that they are related to the sociocultural values which the diagnostician brings to the clinical setting.

Diagnostic errors have profound implications in terms of patient welfare. Di Nardo (1975) states, "The initial judgment about a patient often determines the course of his progress through our

psychiatric system" (p. 366). In addition to a patient's diagnosis affecting treatment decisions made about him, the diagnostic label may in itself alter his behavior. Studies regarding the self-fulfilling prophecy (for example, Rosenthal & Jacobsen, 1968) suggest that when people are aware that an individual has been labeled in a certain way, they tend to respond to that individual as if the label were correct. In time, the individual's behavior changes so that he comes to fit that label. So, if an inaccurate diagnostic label is assigned to a patient, he may begin to exhibit the pathological behavior suggested by that label. In such a case, diagnostic error would serve to create new psychopathology.

Because of the possibility of damage to the patient, it is essential that sources of diagnostic error be identified, so that the mental health professions may find ways to control them. Harrison, McDermott, Schragger, and Showerman (1970) believe that "clinical training should include attention to the clinician's understanding of his own social origin, mobility, identifications, and strivings as a potential facilitator of or deterrent to clinical sensitivity" (p. 658). However, before those involved in training clinicians can attend to this task, they must know which variables are relevant to clinical sensitivity and diagnostic error. It is the researcher's task to identify these variables.

Sequence of Research Designs in Investigating the Problem

Large scale, epidemiological, ex post facto research represents the first logical step in the search for variables which may bias psychiatric diagnoses. Briefly, the approach is to search the files of

mental health facilities for records on a defined sample of patients. Each patient's diagnosis (or other relevant dependent variable) is noted, along with factors which are hypothesized to be related to the diagnosis, such as socioeconomic status, race, religion, sex, etc. It is then determined statistically whether any of these status variables are systematically related to diagnosis.

If some significant relationships between status variables and diagnosis are found, several explanations may be offered to account for the findings. For example, let us assume for the moment that a researcher finds socioeconomic status to be systematically related to a diagnosis (Hollingshead and Redlich, 1958, did in fact find this), such that lower class patients tend to be diagnosed as schizophrenic, while upper class patients are more often judged to be neurotic. Each of the following explanations may account for this result:

1. There is no diagnostic bias operating. It is true that schizophrenia occurs most often among the lower classes, and neurosis is most common in the upper classes. Something about the genetic pool and/or environment of each social class leads to the occurrence of a certain type of mental illness.

2. Being schizophrenic causes one to drop to the lower strata of society; being neurotic either does not affect one's socioeconomic position or elevates it.

3. Lower class schizophrenics and upper class neurotics are more likely to come to the attention of treatment resources than are upper class schizophrenics and lower class neurotics.

4. Diagnosticians tend to be biased against the lower classes, and hence assign harsher diagnoses (schizophrenia rather than neurosis) to lower class patients than to upper class patients.

Because this literature review accompanies a study of a possible biasing factor in diagnosis, supporting or disconfirming the fourth explanation is of primary interest here. The question for the next phase in the research sequence becomes, "Is the relationship between this status variable and diagnosis due in part to a diagnostic bias, or is it due to one of the first three explanations?" (It is possible that any or all of the explanations may contribute to the relationship.)

To answer this question, the researcher constructs "clinical analogue" experimental studies in which diagnostic stimuli are presented to mental health professionals for diagnosis. The stimuli are held constant on all variables except the hypothesized biasing variable(s). If variations in the diagnoses of the stimuli are systematically related to experimental manipulations of the hypothesized biasing variable, then it is suggested that the variable exerts a biasing influence on the diagnostic process.

The type of diagnostic stimuli which are presented determines the point in the diagnostic process at which bias is being investigated. For example, if the clinician's task is to interpret psychological test protocols, the investigation concerns bias at the level of test interpretations. If the task is to rate a patient's psychopathology after observing a videotaped interview, the investigation concerns bias at the stage of arriving at diagnostic impressions from interviews. If the task is to assign a diagnostic label to a patient on the basis of the information contained in a clinical report, the investigation concerns bias in sorting out a mass of test, behavioral, background, and interview data to arrive at a formal diagnosis.

Depending on the degree of technical and personnel resources available to the researcher, the task he presents will be a laboratory analogue of actual clinical diagnostic practice which will differ in some way and/or amount from reality. As a result, the researcher cannot state conclusively that because he found diagnostic bias in his experiment, this bias occurs in actual clinical practice. But although neither ex post facto nor clinical analogue studies alone can conclusively demonstrate the existence of psychodiagnostic bias, the combination of the two can strongly imply such a conclusion. For example, if it is shown that clinicians show social class bias in diagnosing fictitious case reports, and if it is demonstrated that diagnosis is systematically related to social class in actual practice, then the implication is very strong, although not absolutely conclusive, that social class biases psychiatric diagnoses. Just where in the diagnostic process such bias probably occurs is suggested by the type of stimuli presented to the clinicians in the experimental studies.

With theory suggesting the existence of diagnostic bias having been reviewed, and the research methodology required to validate this theory explained, a review of research pertinent to the issue is now in order.

A Review of Pertinent Research

The following review is organized according to status variables which have been hypothesized to exert biasing influences on clinical judgment. For each such variable, epidemiological studies which investigate whether the variable is related to clinical decisions in the real world will be reviewed first, if such studies have been performed. Then experimental studies will be reviewed which suggest

(or fail to find) that the variable does in fact bias diagnosis (rather than there being some other explanation which accounts for the entire correlation between the status variable and diagnosis).

Socioeconomic status. The most widely investigated potential biasing variable on psychiatric decisions is social class position. The first reported epidemiological study in this area, and one which has been frequently referred to in the literature, was conducted by Hollingshead and Redlich (1958). These researchers probed records from mental health facilities in the New Haven, Connecticut area of patients in treatment in late 1950. They assumed that because different social class environments exert different stresses on members of those classes, one would expect different rates and forms of mental illness to occur across social classes. They also reasoned that because psychiatrists deal with social phenomena, and because they work within a social value system, their practice is implicitly connected with social status. Thus, they envisioned two reasons to expect social class to be related to the prevalence, diagnosis, and treatment of mental disorders: true differences in the occurrence of mental illness across social strata, and bias on the part of psychiatrists.

Hollingshead and Redlich found a definite association between class position and the prevalence of psychiatric disorder: the lower the social class, the higher the prevalence of mental illness. They further discovered that diagnosis was significantly related to social class: lower class patients tended to be diagnosed psychotic, while those from the upper classes were most often labeled neurotic. Finally, they found the type of treatment given to psychiatric patients to be systematically related to social class. Upper class patients tended to

be treated in private facilities with long, frequent psychotherapy sessions, while lower class patients were typically treated in public facilities with either organic therapy or custodial care (these findings held up with diagnosis controlled for).

The finding that social class is related to the prevalence and diagnosis of mental illness is open to a number of interpretations. Perhaps mental illness is in fact related to social class, or perhaps the biased judgments of clinicians merely make it appear that way. Hollingshead and Redlich attempted to rule out the latter explanation by having a panel of psychiatrists recheck the diagnoses listed in patients' records, based on case history information. However, because references to patients' social class positions were probably contained in the case histories, the reviewing psychiatrists may have been influenced by social class bias. That there may have been social class bias in Hollingshead and Redlich's data is supported by their observation that psychiatrists tend to like upper class patients more than they do lower class patients. In the opinion of this reviewer, the finding that social class is related to the form of treatment provided strongly suggests a bias against the lower classes.

Myers and Bean (1968) conducted a 10 year follow-up of the patients in Hollingshead and Redlich's study. They found that at the time of the follow-up, lower class patients were likely to be hospitalized, while upper class patients were likely to be discharged. Lower class patients were more likely to be readmitted after discharge than were upper class patients. Upper class patients tended to receive psychotherapy or somatotherapy, while lower class patients tended to be treated with medication, or to be in custodial care. In other words, higher class

patients tended to receive the type of care associated with favorable outcomes, while lower class patients did not. As a result, lower class patients tended to "pile up" in hospitals. These results imply some sort of bias operating against the lower class patient within the mental health system. Myers and Bean concluded, "Whatever the differences in the degree of impairment at presentation, the lower-class patient apparently must demonstrate a higher level of psychological functioning than the higher-status individual before he can be discharged" (p. 208).

Shader, Binstock, Ohly, and Scott (1969) studied the records of 500 consecutive applicants at the Walk-In Service of the Massachusetts Mental Health Center, to determine whether social class acted as a biasing factor with regard to the type and amount of help received. Consistent with other studies, they found that upper class patients tended to be diagnosed neurotic, while lower classes were more often diagnosed psychotic. Initially, upper class neurotics were more likely to be offered psychotherapy than were lower class neurotics. Low socioeconomic status patients were often referred elsewhere for treatment, while higher class applicants were typically treated at the Mental Health Center. Lower class applicants were referred for hospitalization more often than upper class applicants, and the upper class applicants were more "liked" than lower class applicants. The authors concluded that social position and interviewer attitudes were linked to the diagnostic process and to the allocation of services.

Additional evidence of a link between socioeconomic status and psychiatric evaluations and decisions is provided by a series of studies based on the records of the University of Michigan Children's Psychiatric Hospital. McDermott, Harrison, Schragar, and Wilson (1965)

found that children of skilled workers tended to be labeled neurotic, while children of unskilled workers were more often diagnosed as having personality disorders (including borderline psychosis). In contradiction to this finding is a later study which showed no relationship between social class and the diagnosis of psychoses in children (McDermott, Harrison, Schragger, Lindy, & Killins, 1967). However, this study did show a social class bias in the assessment of certain symptoms: Evaluators noted withdrawal most often among children of professionals and executives, and they observed thought disturbance most often among children of the skilled working and professional/executive groups (as opposed to the lower classes). The authors speculated that this was due to a bias: evaluators seemed to view withdrawal and thought disturbance as understandable in the lower classes because of the poor environment: therefore, they did not attach diagnostic significance to these symptoms. McDermott, Harrison, Schragger, Wilson, Killins, Lindy, and Wagoner (1967) found that while there were no significant occupational class differences in the judged incidence of various factors usually thought to be associated with chronic brain syndrome and mental retardation in children, there were significant occupational class variations in the incidences of diagnosed chronic brain syndrome and mental retardation. Surprisingly, both of these syndromes were diagnosed less frequently than expected in lower class children. The authors speculated regarding various explanation for this finding. One explanation offered was that clinicians expected lower levels of psychological functioning among lower class individuals because of environmental disorganization, and thus tended to overlook indices of organicity.

Turning from diagnosis to form of treatment as a dependent variable, Harrison, McDermott, Wilson, and Schragger (1965) found that although

ability to pay was not a factor in their clinic, children of professional or executive parents had twice as great a chance of being offered outpatient psychotherapy as did children of blue-collar workers (who tended to receive inpatient care without psychotherapy). Still another study (McDermott, Harrison, Schragger, Killins, & Dickerson, 1970) showed no relationship between social class of a child's parents and diagnosis, the use of "uncovering" vs. "supportive" therapy, or improvement ratings at the end of therapy. However, this study found that upper class children tended to remain in treatment longer than lower class children. Failure on the part of the clinician to evaluate improvement at all occurred significantly more often in the lower classes (primarily among cases of short duration, who terminated treatment against medical advice).

While the studies conducted at the University of Michigan Children's Psychiatric Hospital which were reviewed above dealt with the social class of the patient, Harrison, McDermott, Schragger, and Showerman (1970) investigated the relationship between the social class background of the clinician and the evaluations made of children. In general, the study suggested that clinicians were harsher in their diagnoses of children from the same social classes as their own. Consistent with other findings, clinicians with lower class backgrounds underdiagnosed organicity, perhaps because they attributed psychopathology to lower class existence per se. It is significant that diagnoses were harsher when clinician and child were of the same social class: this may be labeled "reverse discrimination." Perhaps clinicians sometimes maintain stricter standards of behavior for individuals who are similar to themselves. A quasi-experimental study by Lilienfeld (1966) also failed to find

that psychiatrists gave preferential judgments and dispositions to patients whose sociocultural backgrounds and values were similar to their own. Similarly, Siegel, Kahn, Pollack, and Fink (1968, pp. 343-349) found no relationship between social class and the prevalence of neurosis and psychosis. This finding was based on data collected from three hospitals in different parts of the United States. The patient populations in the studies by Lilienfeld and Siegel et al. were not restricted to children. It is unclear why the studies reviewed in this paragraph failed to find social class bias in the expected direction.

Two studies in the discipline of sociology focused on homophily in the psychotherapeutic relationship: that is, the tendency of therapists and their patients to mutually select each other on the basis of similar characteristics. Kandel (1966) found that in a small state mental hospital, lower class patients were less likely to be in psychotherapy than higher class patients. Further analyzing this finding, Kandel found that psychiatric residents of high social class background tended to select upper class patients for therapy, while residents of lower class origin exhibited almost no tendency to select patients for therapy on the basis of their socioeconomic status. Kandel concluded that social class was the most important factor in patients' participation in therapy with residents of high social classes.

While Kandel's study was conducted in an inpatient facility, Marx and Spray (1972) surveyed private mental health practitioners in three large American cities. As expected, they found that therapists and their patients tended to be of similar social class backgrounds. However, as will be discussed in more detail later, religious background was a stronger variable influencing the selection process.

Focusing on a more narrowly defined area, Levy (1970) reviewed research related to the issue of bias in the interpretation of personality tests. He found evidence of systematic social class differences in personality test results. Levy discussed possible interpretations of this finding: lower class individuals may in fact differ from upper class individuals with regard to personality structure; lower class people may experience greater anxiety in testing situations; tests may be biased against the lower classes; or examiners may be biased.

To summarize, epidemiological and correlational studies have demonstrated rather conclusively that psychiatric evaluations and decisions are significantly related to the variable of social class, although the direction of this relationship is often difficult to predict. As compared to upper class patients, lower class patients show a higher overall incidence of mental illness, are more likely to be diagnosed psychotic, are more likely to be hospitalized and less likely to be discharged, are more likely to be treated in public facilities, are more likely to receive organic treatment or custodial care, are less likely to receive psychotherapy, and are less "liked" by clinicians. Psychotherapists tend to select patients whose social class backgrounds are similar to their own. Although most studies show that clinicians, who belong primarily to the upper classes, tend to diagnose upper class patients as neurotic and lower class patients as psychotic, one investigation found that clinicians were more severe in their diagnoses of children with social class positions similar to their own. There is also evidence that clinicians expect less efficient functioning from lower class patients, and thus sometimes overlook psychopathology in such patients.

While some type of relationship exists between social class and psychodiagnosis, the studies reviewed so far leave it unclear whether this is due to true differences in the prevalence of mental illness across the social strata, or whether diagnoses are biased according to social class. Attention will now be turned to studies utilizing experimental designs, to help resolve this issue.

Perhaps the first step in the diagnostic process is the formulation of interview impressions. Three studies which investigated social class bias at this step will now be summarized. Lee (1968) played a recording of a diagnostic interview to a group of psychiatric residents. In the interview, a professional actor played the "patient", enacting a normal person without psychological problems. A case history accompanying the interview was varied on socioeconomic status. It was found that the "lower class patient" was diagnosed mentally ill with a poor prognosis more often than a "patient" from the upper or middle classes. Lee concluded that "a person of lower socioeconomic status may be diagnosed as mentally ill as a consequence of his social standing in the community" (p. 4759B). He speculated that mental illness is partially defined by middle class morals and ethics. A replication of Lee's study (Lee & Temerlin, 1970) confirmed that an interview of a low socioeconomic status patient tended to be diagnosed as mentally ill with a fair prognosis, while middle class, upper class, and control (no social class indicated) patients were diagnosed normal with an excellent prognosis.

Di Nardo (1975) presented an interview with a normal, healthy man, portrayed by a drama student, to a group of graduate students in clinical psychology. Greater pathology (measured by a Q-sort) was attributed to

the "pateint" when the interview was accompanied by a lower class history than when it was accompanied by a higher class history. However, formal diagnosis was not significantly affected by patient social class.

Di Nardo concluded, "The tendency to give poorer assessments to the lower-class interview must be considered a bias" (p. 367).

The above studies suggest that a social class bias, operating to the detriment of lower class patients, exists in clinicians' formulations of interview impressions. Studies which investigated whether such a bias also operates in the interpretation of psychological tests will now be reviewed. Recall that Levy (1970) found social class differences in personality test results in his literature review. Whether some of this difference may be attributed to examiner bias must be determined by experimental investigations.

A frequently cited study of bias in test interpretation was conducted by Haase (1956). He found that clinical psychologists' interpretations of Rorschach protocols were biased against the lower classes on pre-diagnostic impression, diagnostic score, and prognostic score. Psychologists preferred diagnoses of character disorders or psychoses for lower class protocols, and opted for diagnoses of normality or neuroses for higher class protocols. Psychologists' class origin was unrelated to this bias. Less speculative criteria were less subject to bias.

Haase's study has been replicated three times, with conflicting results. Levy (1969) found that Rorschach interpretations by doctoral students in psychology and by Fellows in the Society of Projective Techniques were biased against lower class patients (much more so for the students than for the experts). Lower class protocols were

diagnosed as psychotic or as suggesting character disorder, while middle class protocols were judged to reflect neuroses or situational stress reactions. Bias exerted a stronger effect on overall considerations and case dispositions than on more specific variables. Trachtman (1971) presented Haase's Rorschach protocols to 60 male psychologists and found greater pathology and poorer prognoses ascribed to lower class protocols. Low socioeconomic status protocols tended to be diagnosed as character disorders, while middle class protocols were assessed as neurotic. In contrast to Haase's findings, Trachtman found no bias on pre-diagnostic impressions, and no bias regarding the diagnosis of normality or psychosis: In Trachtman's study, bias was evident only in the diagnosis of character disorders and neuroses, and in prognostic ratings. She speculated that social class bias still existed, favoring the middle class, but that this bias had decreased during the period of time since Haase's study in 1956. In marked contrast to Haase's findings, Koscherak and Masling (1972) found that clinicians and students attributed greater pathology and more negative statements to middle class Rorschach protocols than to lower class protocols. They speculated that by the time of their research project, clinicians may have been making serious attempts to empathize with lower class patients.

To summarize, interpretations of Rorschach protocols are affected by the ascribed social class of the "patients." Early studies indicated a bias against lower class examinees. However, more recent studies suggest that the direction of this bias is changing, such that clinicians are becoming more lenient in diagnosing lower class patients, and

harsher in diagnosing middle class patients. Additional research is needed to confirm this trend.

Turning now from personality testing to intelligence testing, Nalven, Hofmann, and Bierbryer (1969) presented a Wechsler Intelligence Scale for Children (WISC) profile to a large sample of psychologists, and asked them to estimate the child's "true IQ." The lowest "true IQ" estimates were given to middle class protocols; the highest estimates were given to lower class protocols. Apparently, psychologists assumed that lower class children's measured IQ's were underestimates of their true IQ's.

It seems clear that clinicians' knowledge of patients' socio-economic status biases their interpretations of both interview data and test results. The final step in the diagnostic process involves integrating interview, test, and case history data into an overall diagnostic picture. Studies which present clinicians with case descriptions to diagnose indirectly investigate whether bias exists at this stage of the diagnostic process. A review of such studies follows.

Thain (1968) found that recommended form of treatment and expected improvement with treatment were significantly related to the social class of the patients portrayed in case descriptions. However, the characteristics of Thain's subjects were not specified: It appears that they were not professionals. Thain's findings leave unanswered the question of whether mental health professionals exhibit the same sort of bias. Fortunately, other studies have addressed this question. Kurtz, Kurtz, and Hoffnung (1970) presented case histories, varied on social class and neuroticism/psychoticism, to a group of social work

graduate students and psychiatric residents. Residents who were high scorers on a measure of authoritarianism judged lower class cases more negatively than middle class cases. Social work students exhibited the same trend, but it failed to reach statistical significance. In addition, subjects' ratings showed greater liking for neurotics than for psychotics. Because neurotics tend to be middle and upper class while psychotics are typically lower class, a social class bias is implied by this finding. In a more recent study, Schofield and Oakes (1975) presented brief biographical paragraphs of fictitious patients to students in a clinical psychology seminar. While no bias was found with regard to recommendations regarding type of treatment, lower class patients were perceived as being in greater need of help than middle class patients. It should be noted that the brevity of the biographical materials presented to subjects in this study made the task quite dissimilar to actual clinical practice: thus, the findings are of limited generality.

Two experimental studies investigated social class bias in recommendations for psychotherapy. It is recalled that psychotherapists and their patients tend to be of similar social class origins (Kandel, 1966; Marx & Spray, 1972). Rowden, Michel, Dillehay, and Martin (1970) found that high socioeconomic status case histories were recommended for psychotherapy significantly more often than low socioeconomic status case histories, and that therapists of high social class origins recommended psychotherapy more frequently than therapists from lower level origins. Vail (1970) demonstrated that social workers and social work students viewed lower class cases as having less treatment potential and fewer desired characteristics for casework than middle class cases. The social class of the cases also affected the type of therapy

recommended, what the worker would discourage in the cases, expectations of keeping appointments, and prognosis. Taken together, these studies suggest that mental health workers are biased against the lower classes in their decisions regarding the practicality of psychotherapy.

While the studies reviewed above dealt with adult cases, several researchers have examined social class bias in evaluating children. Garfield, Weiss, and Pollack (1973) found that public school counselors recommended home visits and consultations with supervisors more often for high socioeconomic class children than for low socioeconomic class children. For lower class children, the counselors tended to recommend retention at present grade level, and they tended to believe that the children would become delinquent or drop out of school. In general, the counselors were more willing to become ego-involved with upper class children than with lower class children.

Regarding the diagnosis of mental retardation in children, Neer, Foster, Jones, and Reynolds (1973) found that low socioeconomic status cases were more likely to be diagnosed as mentally deficient than middle or upper class cases, with no difference between the latter two groups. However, another study (Kelsey, 1976) failed to find evidence of social class bias when school psychologists were presented with a differentiation between the diagnoses of mental retardation and learning disability.

So far, it would seem that evaluations of case reports are biased against the lower classes. However, two research projects found social class bias to operate in the opposite direction. Routh and King (1972) found that middle class persons were rated as more likely in need of help than lower class persons (this effect was more pronounced for

introductory psychology students than for clinical psychologists). Levy (1976) found that although white collar workers were rated as being more satisfied with their jobs, blue collar workers were judged to be mentally healthier.

In summary, the vast majority of experimental clinical analogue studies on socioeconomic class bias in mental health evaluations have found significant biases against lower class patients. This bias has been demonstrated at three points in the diagnostic process: evaluating interviews, interpreting psychological tests, and diagnosing case reports. Thus, the variations in the prevalence and diagnosis of mental illness across social classes which was found in ex post facto studies may be accounted for at least in part by bias on the part of mental health examiners.

A few researchers have found biasing trends in the opposite direction (greater leniency for the lower classes). While these studies are recent, not all of the studies in the recent literature show this reverse discrimination. Thus, the claim that clinicians are becoming more empathetic toward lower class patients (Koscherak & Masling, 1972) is not completely substantiated. Although there is no evidence in the literature in this regard, the following speculation is presented to suggest an avenue for future research. Perhaps while performing most clinical tasks, clinicians' affective or unconscious prejudices bias their evaluations and decisions. Yet in some tasks which differ in some as yet unspecified way from typical clinical practice, perhaps clinicians are able to override their emotional biases with a sort of cognitive liberalism. This could account for the reverse discrimination

found in a few studies. How the situations in which this occurs differ from other clinical situations remains to be determined.

Education level. Potential biasing factors related to social class are insight-verbal ability and education level. Education level was one of the factors used to compute patient social class by Hollingshead and Redlich (1958) and Myers and Bean (1968). Thus, since it was demonstrated that social class is related to psychodiagnosis, and since education level is one measure of social class, then education level, and its correlate, insight-verbal ability, should be related to clinical decisions. This hypothesis has been experimentally supported. Brown (1971) found that Ph.D. clinical psychologists preferred highly educated patients as candidates for psychotherapy. Rowden et al. (1970) discovered that, when patient socioeconomic status was controlled, clinicians were more likely to recommend psychotherapy for a "patient" (fictitious case history) of high insight-verbal ability than for a "patient" of low insight-verbal ability. While these findings are probably grounded in reality (psychotherapy is more easily performed with intelligent, well-educated patients), the nature of this one form of treatment acts to exclude those with little education or verbal skills.

Race. Two ex post facto studies which investigated a relationship between race and clinical decisions yielded conflicting results. Dorfman and Kleiner (1962) found that race of patient, race of examiner, and interaction between race of patient and race of examiner were all irrelevant to diagnosis and disposition in a state reception center. However, Gross, Herbert, Knatterud, and Donner (1969) found significant relationships between race of patient and diagnosis and disposition in

an open psychiatric clinic of the Maryland School of Medicine. They found that white females were more likely than nonwhite females to be diagnosed neurotic and referred for outpatient treatment; nonwhite females were more likely to be treated in the emergency room proper and labeled schizophrenic; nonwhite females were slightly more likely to be hospitalized than white females; behavior that required hospitalization was called schizophrenic in nonwhite females and neurotic in white females; and nonwhite males were most likely to be hospitalized and least likely to be diagnosed neurotic.

The findings discussed above do not conclusively demonstrate the presence or absence of racial bias in psychiatric decisions. Despite this lack of clarity, investigators have attempted to experimentally isolate racial bias in diagnoses and recommendations. As will soon be seen, the results of these projects are equally ambiguous.

Nalven et al. (1969) found that psychologists estimate a higher "true IQ" if a WISC profile is thought to represent a black child than if it is attributed to a white child. The effect of race on estimates of "true IQ" was not as strong as the effect of social class. This result probably reflects the fact that psychologists, during the course of their training, are taught that intelligence tests are biased against ethnic minorities, and that this bias must be compensated for when interpreting IQ scores. Thus, while this study showed race to affect one type of clinical judgment, it certainly did not indicate that psychologists were biased against certain racial groups.

Turning now to the area of academic and vocational counseling, Persons (1973) found that male counselor trainees gave more favorable occupational predictions to white male cases than to black female cases.

However, female counselor trainees showed no evidence of racial bias in their occupational predictions. Smith (1974) showed that public school counselors were not biased by client ethnic group (Anglo vs. Chicano) when rating academic potential and recommending vocations.

Vail (1970) concluded that social work students and practitioners were not influenced by client race (black vs. white) in their judgments of treatment potential. Schwartz and Abramowitz (1975) found various racial effects when psychiatrists rated fictitious patients on indices of diagnosis, prognosis, and recommended treatment. However, these effects were complex, and did not represent a consistent bias against blacks. Psychiatrists indicated a reluctance to work with black men, yet they assigned more favorable prognoses to blacks than to whites.

From the above findings, it would appear that there is no consistent racial or ethnic bias operating in the helping professions. Where evidence of such a bias was found, it appeared that social class was a stronger biasing factor than race. If racial bias in clinical decisions does exist, it apparently operates in complex ways which are not yet fully understood. Perhaps racial bias is brought out in situations requiring direct personal involvement on the part of the clinician, while such bias is overridden by cognitive liberalism in situations in which the clinician is able to remove himself from personal involvement.

Broadening the concept of race to a global level, one might wonder whether the cultural setting in which a professional works may influence his decisions. Recall that theorists have proposed that mental illness is defined in terms of deviance from cultural norms (Szasz, 1968; Waxler 1974). Thus, one would expect variations in cultural norms to

be reflected in variations in the definition of mental illness. If the definition of mental illness varies across cultures, then its prevalence and diagnosis should also vary. It has been reported that there are in fact cross-cultural differences in the types, rates, and outcomes of psychiatric disorders (Waxler, 1974). For example, it has been reported that the admission rate of manic-depressives to hospitals in England and Wales exceeds the rate in the United States by anywhere from 9 to 18 times, depending on how the statistics are computed (Kolb, 1973, p. 366). To determine whether some of this striking difference could be due to different diagnostic conceptions on the part of clinicians in the two national settings, Katz, Cole, and Lowery (1969) presented videotaped interviews to American and British clinicians for diagnosis. They found that British clinicians opted for affective diagnoses, while Americans tended toward schizoid diagnoses. The Britains perceived less overall pathology, and the two groups differed in ratings of specific symptom areas. Katz et al. concluded that ethnic background apparently influenced psychodiagnosis and perception of symptomatology.

Sex. Sex and sex role attitudes as potential biasing factors in psychodiagnosis have been investigated almost as extensively as socioeconomic status. The suggestion that sex bias may exist in clinical decisions is found in three studies. Kandel (1966) found that women are more likely to be in psychotherapy than men. Gross et al. (1969) discovered that patient sex interacted with patient race in varying systematically with diagnosis and disposition in a psychiatric clinic. Levinson and York (1974) searched the files of a mental health center, and noted that among patients whose behavior was disruptive, males were

more likely than females to be considered "dangerous." Thus, it seems that patient sex correlates with certain kinds of psychiatric decisions. In attempts to establish a causal relationship between sex bias and psychiatric evaluation parameters, numerous clinical analogue experiments have been performed.

Some researchers have opted to study sex role bias in ratings of the normality/abnormality of short statements or traits. Broverman, Broverman, Clarkson, Rosenkrantz, and Vogel (1970) instructed psychologists, psychiatrists, and social workers to describe a normal, healthy "male," "female," or "adult" by rating this hypothetical individual on 122 bipolar traits. One pole of each trait was masculine, the other feminine (for example, very aggressive/not at all aggressive). It was found that clinicians tended to consider socially desirable masculine characteristics more often as healthy for men than for women, but only about half of the socially desirable feminine traits were judged more often as healthy for women than for men. In addition, concepts of mental health for men and for adults did not differ significantly, while concepts of health for females and for adults did differ. Broverman et al. concluded that a double standard of mental health exists for men and women, with healthy women perceived as less healthy than healthy men by "adult" standards; and women are placed in the bind of whether to be "healthy" or "feminine."

Zeldow (1975) presented statements derived from Minnesota Multiphasic Personality Inventory (MMPI) items, attributed to psychiatric patients, to male and female college students. The students were instructed to rate the degree of maladjustment reflected in the statements. These ratings were unaffected by sex of rater, sex of

patient, or interaction between sex of rater and sex of patient. However, a replication of this experiment (Zeldow, 1976), while confirming the absence of main or interaction effects for sex of rater and sex of patient, revealed interaction effects between sex of rater, sex of patient, and statement content: when a female "patient" expressed an attitude or preference normally associated with the masculine sex role to a male layman, she was judged to be more disturbed than if she had described herself neutrally or in terms of a feminine stereotype. Female judges did not show this bias.

The research conducted by Broverman et al. and Zeldow suggests that for both laymen and mental health professionals, conceptions of what behaviors, attitudes, and traits are healthy vs. maladjusted are affected by sex role stereotypes. Because making judgments concerning the abnormality of behaviors and traits which patients present is part of the process of psychodiagnosis, one would expect this bias to influence psychiatric evaluations. This issue has been addressed frequently in the literature.

Three research teams have addressed the issue of sex bias in test interpretation. Nalven et al. (1969) found that the gender ascribed to a fictitious child did not affect the estimates which psychologists made of that child's "true IQ" from a WISC profile. Wohlford and Flick (1969) asked a small sample of Ph.D. psychologists to rate the presence or absence of organic brain impairment from Bender Motor Gestalt and Memory for Designs test protocols. They found that female raters gave significantly more impaired ratings than did male raters. Bender Motor Gestalt protocols of male cases received more impaired ratings than protocols of female cases (this was not the case for

Memory for Designs protocols). Wohlford and Flick tentatively concluded that male and female raters used different subjective frames of reference in weighing the same indicators of organicity.

Lewittes, Moselle, and Simmons (1973) investigated sex bias in interpretations of Rorschach protocols. There were insignificant trends for male raters to diagnose male protocols less severely than female raters, and for female raters to diagnose female protocols less severely than male raters. Female raters diagnosed female protocols significantly less harshly than they diagnosed male protocols. Lewittes et al. concluded that both sex of respondent and sex of rater affected interpretations of Rorschach protocols. Male raters were less biased than predicted, and female raters exhibited a pro-female bias.

To summarize, in the realm of test interpretation, sex bias seems to operate in varying degrees and in varying directions, depending on the nature of the task. Attention will now be turned to investigations of sex bias in psychiatric evaluations of hypothetical case reports.

It is recalled that women are more likely to be in psychotherapy than men (Kandel, 1966). Brown (1971) found that male Ph.D. therapists preferred females over males as their clients. Thus, at least part of the tendency for females to be overrepresented in therapy may be explained by therapists' preference for working with females.

Persons (1973) sought to determine whether counselor trainee's occupational predictions for bogus clients were influenced by sex bias. He found that female counselor trainees showed no sexual bias in their predictions. However, males did exhibit a bias: they rated black male clients higher than black female clients, and they rated white male clients higher than black female clients.

A number of studies have focused on sex bias in various ratings of psychological maladjustment. LaTorre (1975) found no sex bias in undergraduate students' ratings of a fictitious obsessive-compulsive patient. However, regarding a fictitious schizophrenic patient, female students rated the patient as being more ill and as more difficult to accept as a friend than did male students. A female schizophrenic was viewed as being more in need of help, and as having a better prognosis, than a male schizophrenic. LaTorre concluded that his male subjects were more "accepting" of the schizophrenic patient than were female subjects.

LaTorre's study utilized college undergraduates as subjects, and thus his findings cannot be generalized to mental health professionals. Other studies have dealt with professionals. Abramowitz and Abramowitz (1973) found that the clinical inferences about a fictitious female student made by female counselors were conspicuously stringent. This finding is in contrast to that of Lewittes et al. (1973), which indicated that female raters' interpretations of female Rorschach protocols were lenient. Bilick (1973) found that neither sex of patient nor sex of rater affected clinicians' assessments of fictitious patients. Haan and Livson (1973) performed a post hoc analysis of data utilized in a larger study, and found differences between male and female clinical psychologists' California Q-Sort ratings of male and female cases. However, a critique of Haan and Livson's article by the developers of the California Q-Sort technique revealed a methodological flaw. When the data were re-analyzed appropriately, no reliable differences between the ratings by male and female psychologists were found (Warner & Block, 1975). A study by Zeldow (1975) provided a very tentative suggestion that the sex of the judge may be a source of bias on

recommended intervention and prognosis of fictitious cases. However, Zeldow appropriately concluded that sex bias was not very pervasive in his data.

On the whole, neither sex of clinician nor sex of patient seem to have much effect on ratings of maladjustment, ratings of symptomatology, recommendations for intervention, or ratings of prognosis. However, more intricately designed studies have found that a significant sex bias may be mediated by the sociopolitical attitudes of the clinician. Abramowitz, Abramowitz, Jackson, and Gomes (1973) found that the political orientation of the examiner interacted with the sex of the patient in affecting counselors' adjustment ratings of a fictitious case history. They discovered that politically conservative counselors were unusually severe in their judgments of a female case. A later study found that psychiatrists who scored high on the Traditional Beliefs Scale preferred women as their psychotherapy patients, while less traditional psychiatrists opted more for male patients (Schwartz & Abramowitz, 1975).

While the findings reviewed above dealt with sex bias per se, other researchers have also investigated sex role bias. Bilick (1973) presented clinicians with cases representing both masculine and feminine sex-stereotypic behavior in both male and female forms. Regardless of gender, the feminine stereotype patients received poorer adjustment ratings than the masculine stereotype patients. Bilick concluded that it is not the sex of the patient but perhaps sex-stereotype characteristics which are responded to negatively or positively by clinicians. Chasen (1974) presented school psychologists with active and passive male and female cases to rate. Unexpectedly,

she found that a counterstereotypic diagnostic sex role bias was operating, such that active girls and passive boys were rated as healthier than passive girls and active boys. Further analyzing the data, Chasen discovered that male psychologists with traditional sex-role attitudes displayed stereotypic sex role bias, while those with untraditional sex role attitudes showed counterstereotypic sex role bias. Overall, male raters showed no sex role bias, while female raters showed a counterstereotypic bias (they were most accepting of active girls and least accepting of passive girls).

In conclusion, the simple factors of sex of clinician and sex of patient do not seem to bias clinicians in their assessments of patients. However, attitudinal and personality variables such as political orientation and traditionalism appear to interact with gender to cause some bias in psychiatric evaluations and decisions. It also appears that clinicians are somewhat biased by their own sex-role attitudes and by the type of sex role behavior displayed by their patients.

Marital status. Two ex post facto studies have investigated the relationship between patient marital status and psychiatric evaluations. Jennings (1972) found that among the psychiatric outpatient population at a southwestern hospital, marital status appeared unrelated to diagnosis. Levinson and York (1974) found an insignificant trend for "dangerousness" to be attributed to unmarried patients more often than married patients. One experimental study found that Ph.D. level psychotherapists preferred married persons over unmarried persons as therapy patients (Brown, 1971). Thus, it appears that marital status may bias some types of psychiatric evaluations and not others. Due to the small amount of research which has been done in this area,

conclusive statements regarding the biasing effect of patient marital status are unwarranted at this time.

Age. It has been found in ex post facto studies that patient age is unrelated to participation in psychotherapy in a small state mental hospital (Kandel, 1966), and that among disruptive psychiatric patients, younger individuals are more likely to be labeled "dangerous" than older individuals (Levinson & York, 1974). Although these findings provide scanty evidence as a basis of hypothesizing age to be a biasing factor in psychodiagnosis, a number of researchers have made that hypothesis in designing clinical analogue experiments.

Nalven et al. (1969) found that psychologists' estimates of a child's "true IQ" from a WISC profile were unaffected by the age ascribed to the child. Kelsey (1976) found that the age of a fictitious child did not affect school psychologists' diagnoses or recommendations regarding that child. Turning from evaluations of children to evaluations of adults, LaTorre (1975) concluded that patient age did not affect undergraduate students' ratings of maladjustment, their perceived ability to be the patient's friend, or ratings of amount of intervention necessary and prognosis. Levy (1976) was unable to identify any bias due to patient age in clinicians' ratings of adjustment of a fictitious case. Only one study in this area demonstrated that patient age influenced clinical decisions: Brown (1971) found that doctoral level psychotherapists preferred young persons as therapy patients. Overall, it appears that in most areas of clinical work, the age of the patient does not bias clinicians in their evaluations. There is some suggestion that younger persons are more likely to be considered "dangerous" than

older persons, and that therapists prefer young individuals as their patients (perhaps because young people are perceived as being less set in their ways and more amenable to change than older patients).

Professional factors. In this "catch-all" section, studies of possible biasing variables on psychodiagnosis which are related to clinicians' training and employment will be reviewed. Included in this category are clinicians' experience level, their professional affiliation, the setting in which they work, their theoretical orientation, the type of clientele they typically see, and their tendency to diagnose so as to help the patient. The suggestion that such factors may bias psychodiagnosis is found in epidemiological research conducted by Siegel et al. (1968, pp. 343-349). Searching the records of three hospitals in separate areas of the country, Siegel et al. found diagnostic differences between the institutions, which utilized different characteristic forms of treatment. Although the differences in geographic location may have confounded the findings, the authors concluded that "any consideration of patterns of diagnosis and therapy cannot ignore the philosophy of the treatment setting" (p. 348).

Two variables appear to be confounded in the results reported by Siegel et al.: clinical setting and theoretical orientation. Both of these variables have been investigated experimentally. With regard to clinical setting, the focus has been on diagnostic differences between clinicians employed in inpatient facilities and those employed in outpatient settings. Perrett (1972) found that case histories with both inpatient and outpatient problems were rated as slightly more disturbed when presented in an outpatient context than when presented in an inpatient context. This effect was more pronounced when the

raters were students than when they were experienced clinicians. Greenberg (1975) found that inpatient clinical psychologists over-diagnosed functional psychosis, as compared to outpatient clinicians, when presented with filmed psychiatric screening interviews. While these two studies both found that the clinical setting of the examiner biased his evaluations of patients, the direction of this bias differed. Perrett found that outpatient clinicians were more severe in their ratings, while Greenberg found that inpatient clinicians were more severe in their diagnoses. Perhaps the nature of the tasks presented in the two studies accounted for this difference: more research is needed to clarify this issue.

Two studies which investigated diagnostic bias according to clinicians' theoretical orientations produced somewhat conflicting results. Haase (1956) concluded that the theoretical inclination of psychologists (Freudian vs. Sullivanian) did not mediate in their bias against lower class Rorschach protocols. However, Greenberg (1975) found that analytically-oriented psychologists tended to overdiagnose character disorders, while eclectic psychologists overdiagnosed functional psychoses and neuroses, when rating filmed psychiatric screening interviews. So, although two studies certainly present meager evidence on which to base conclusions, it appears that clinicians' theoretical stances may influence their diagnoses, although various theoretical orientations do not temper or exacerbate social class bias.

Mahrer (1962) sought to determine whether psychodiagnosticians' professional affiliation (psychologist vs. psychiatrist) influenced their diagnoses of one-sentence symptom "cues." No such influence was found. However, the artificial nature of the task and the weakness of the

statistical test used in the study do not permit generalization of the findings to actual clinical psychodiagnostic practice.

Haase (1956) hypothesized that the type of clientele which clinicians deal with in their everyday practices, that is, whether they normally engage in practice with lower class patients, would influence the degree of social class bias in their Rorschach interpretations. However, his findings did not support this hypothesis. In another isolated study, Rooymans et al. (1972) reasoned that physicians, in their clinical practices, tend to diagnose in such a way as to help their patients. They thus expected that psychiatrists would diagnose case histories differently when instructed to diagnose as they did in their practice than when instructed to diagnose as if they were taking an examination on diagnosis. They interpreted their findings as supporting this hypothesis. However, numerous glaring methodological and statistical flaws in their study make their conclusion highly suspect.

A number of investigators have studied the effect of clinicians' experience levels on their diagnoses. Ideally, one would hope that extensive clinical experience would reduce clinicians' tendencies to be inaccurate and biased in their diagnoses. The research on this issue is equivocal. Intuitively, one would not expect experience level per se to bias psychiatric evaluations, yet some researchers have studied the effect of experience level per se on psychodiagnosis. Predictably, their efforts have yielded either negative or contradictory findings. Mahrer (1962) found that length of professional experience did not affect psychiatrists' and psychologists' diagnostic impressions of symptomatic "cues." Vail (1970) ascertained that experience level of social workers failed to influence their assessments of a

fictitious case. Brown (1971) established that both graduate students and experienced clinicians preferred young persons as psychotherapy patients, but the students opted for single patients, while the clinicians selected married persons. Number of years experience for the clinicians did not affect their choice of therapy patients. Katz et al. (1969) found that clinicians with longer clinical experience perceived less hostility in a videotaped interview than did younger clinicians. Contrary to this finding, Caetano (1974) reasoned that greater clinical experience would increase presumptions of mental illness. In support of this, he found psychiatrists to be harsher in their assessments of two videotaped interviews than abnormal psychology students. Of course, it is possible that the psychiatrists, due to their training and experience, were simply more "correct" in their assessments.

A more fruitful research approach has been to investigate whether clinical experience either tempers or exacerbates various forms of diagnostic bias. Haase (1956) expected greater clinical experience to reduce social class bias in Rorschach interpretation. However, he found no effect due to experience level. Levy (1969) was able to isolate such an effect: He discovered doctoral students to show greater social class bias in Rorschach interpretations than Fellows in the Society of Projective Techniques. Perhaps the distinct polarization in the experience level of Levy's subjects succeeded in teasing out this effect, while Haase's subjects were more homogeneous with regard to the amount of experience. Perrett (1972) noted that graduate students were more susceptible than clinicians to biasing effects due to clinical setting (inpatient vs. outpatient). While extensive clinical experience seems to reduce (but not eliminate) social class bias, Schwartz and

Abramowitz (1975) found that more experienced psychiatrists were more negative in their appraisals of women (especially white women) than their less experienced colleagues. However, it is possible that the more experienced psychiatrists in this study were simply older than their less experienced counterparts, and were thus less influenced by the modern feminist movement. This could account for their greater sex bias. Caetano (1974) learned that experience level did not interact with the suggestion of mental illness in influencing ratings of videotaped interviews.

In summary, there is little evidence that experience level alone biases psychiatric evaluations. However, there is some suggestion that more experienced clinicians are less subject to social class biases than less experienced clinicians. The setting in which a clinician works (inpatient vs. outpatient) seems to affect his diagnoses; however, the direction of this effect is unclear. Clinicians' theoretical orientations may influence their diagnoses. At the present time, it appears that other variables related to mental health professionals' professional training and practice either do not affect psychodiagnostic practices, have minimal effects, or have as yet undetermined effects.

Suggestion effects. In Levinson and York's (1974) study of patient status variables which correlated with the prediction of "dangerousness," it was found that disruptive patients who had previously received psychiatric treatment were more likely to be considered "dangerous" than disruptive patients with no treatment history. This finding implies that clinicians' assessments of patients may be influenced by the suggestion of a previous diagnosis. Psychodiagnostic bias due to suggestion effects has been examined experimentally. Termerlin (1968) had psychiatrists, clinical psychologists, and graduate students diagnose a tape

recorded interview with a normal, healthy man. Some of the subjects heard a high prestige professional call the subject "a very interesting man because he looked neurotic but was actually quite psychotic" before listening to the interview. This suggestion produced significantly more diagnoses of psychosis than were made by control groups. Psychiatrists were most influenced by the prestige suggestion; graduate students were influenced the least. In a study by Lee and Temerlin (1970), 30 psychiatric residents diagnosed a recorded diagnostic interview in which a professional actor portrayed a mentally healthy man. Some of the subjects received a suggestion from "two board certified psychiatrists and a psychoanalyst" that the man was neurotic; others received a suggestion of psychosis. Subjects who received no suggestion considered the man normal. Caetano (1974) had psychiatrists and abnormal psychology students diagnose two videotaped interviews. Some of the subjects were told that the interviewees were hospitalized mental patients; the others were told that the interviewees were "off the street and paid to participate." Both the psychiatrists and the students were affected by the suggestions in their diagnostic ratings. Experience level did not interact with the suggestion variable. Di Nardo (1975) had clinical psychology graduate students rate case history reports with one of three suggestions: none, psychotic according to two psychologists, or psychotic according to two psychiatrists. The psychiatrists' suggestion induced ratings of greater pathology (although no one diagnosed psychosis); the psychologists' suggestion had no effect.

The findings reviewed above lead one to the disturbing conclusion that suggestions regarding the degree or type of psychopathology exhibited by a patient influence clinicians' assessments. Generalizing

from this conclusion, it is probable that patients carrying a diagnostic label from a previous psychiatric episode from which they have remitted and patients bearing inaccurate diagnostic labels are unlikely to be able to rid themselves of the stigma of those labels. Whether the experience level of clinicians or their professional affiliations alter the degree to which they are susceptible to suggestion effects is unclear.

Personality traits. A number of researchers have hypothesized that personality traits of clinicians may influence their diagnostic practices. Surprisingly, the number of personality traits which have been investigated as possible biasing variables is quite small. Due to the practical and methodological difficulties involved with assessing clinicians' personalities in retrospect, ex post facto studies have not been performed in this area: The research has been exclusively in the form of clinical analogue experiments.

One clinician personality variable which has been proposed as a biaser of psychodiagnosis is authoritarianism. A person who is authoritarian is one who is rigid, arbitrary, moralistic, ethnocentric, and politically conservative; one who views deviance from his or her frame of reference as immoral and pathological; one who sees moral issues in black and white terms (Kurtz et al. 1970). The first study dealing with this variable in psychodiagnosis found that authoritarian psychiatric residents showed a social class bias in their ratings of case histories, while nonauthoritarian subjects did not (Kurtz et al., 1970). However, Chasen (1974) learned that authoritarianism in school psychologists did not affect the amount of sex-role bias in their ratings of case histories. In another negative finding, Trachtman (1971) found that psychologist authoritarianism did not interact with the social class ascribed to

fictitious patients in the psychologists' ratings of Rorschach protocols. Thus, there is little evidence that the level of authoritarianism of the clinician alters the amounts of social class and sex role biases in his diagnoses.

A personality variable similar to authoritarianism is traditionalism. Schwartz and Abramowitz (1975) found that psychiatrists who scored low on a scale assessing traditional beliefs tended to recommend electroconvulsive therapy for white patients less often and psychotherapy more often than their more traditional colleagues. The traditional psychiatrists recommended psychotherapy more often for women than for men, while the opposite was true for less traditional psychiatrists.

Some isolated findings regarding clinicians' personality characteristics will now be mentioned. Garfield et al. (1973) found no relationship between school counselors' democratic attitudes toward children and their ratings of a fictitious case. Brown (1971) discovered that clinical psychologists who had not personally been in psychotherapy rated younger patients more favorably than clinicians who had been in therapy. Trachtman (1971) learned that experimentally-induced status anxiety was unrelated to psychologists' evaluations of patients of different social classes.

In conclusion, attempts to relate clinicians' personality characteristics to various forms of psychodiagnostic bias have been largely unsuccessful. The findings from such attempts are difficult to integrate into any kind of cohesive picture. This may be a reflection of the present status of personality measurement in general.

Political and life style attitudes. Szasz (1968, pp. 22-30) has suggested that the essential function of the mental health system is political: to preserve the status quo by discrediting those whose behavior does not conform to social expectations. If there is some truth to this proposition, then the political convictions and life style of the clinician should interact with the political convictions and life-style of the patient in biasing the clinician's assessment of the patient. Specifically, clinicians would be expected to be unduly severe in their evaluations of patients whose political orientations and life styles differ from their own. Evidence in support of this hypothesis follows.

Abramowitz et al. (1973) determined the political stance of a sample of mental health and education professionals, and presented each of these subjects with a short case history in one of four forms: (politically) left female, right female, left male, or right male. The subjects rated the level of adjustment of the individual depicted by the case on a four-point Likert scale. The results showed an insignificant trend for leftist cases to be viewed less favorably than the more conservative cases. In addition, the politics of the examiners interacted with the sex of the case such that clinical inferences about males were less strongly related to evaluators' political philosophies than were such inferences about females. Conservative raters made unusually harsh judgments about women's psychological statuses, and they judged liberal women more harshly than liberal men. Abramowitz et al. concluded that assessors' political opinions are a potential source of bias in clinical decisions.

Rosenthal and White (1972) varied the appearance of an experimental confederate from "hip" to "square." The confederate appeared before

students in two sections of an intermediate psychology class, who rated his behavior and problems. The authors found that judgmental severity increased as a positive function of discrepancy between the raters' and the confederate's appearance. While the raters in this study were undergraduate students, another investigator found evidence of a similar trend among psychiatrists. Caetano (1974) discovered that psychiatrists tended to diagnose a hip-appearing "mental patient" as merely "hippie," adding that being a "hippie" was in and of itself a form of mental illness.

The findings reviewed in this section suggest strongly that discrepancies between the political stances and life styles (as reflected in dress and grooming styles) of clinicians and those of patients negatively bias mental health related evaluations.

Religion. In this section, literature concerning the relationship between religion and various aspects of clinical mental health practice will be reviewed. This section is deliberately placed near the end of this literature review. It is hoped that after noting what research has been done in this area to date, the reader will be left with a sense of what research is still needed. The present study can then be fit into this context.

Several investigators have examined the question of whether religion is a factor which influences the selection of patients for psychotherapy. Eichler and Lirtzman (1956) studied patients in individual treatment in a Veterans Administration hospital. Compared to their distributions in the community, Jews were overrepresented and Protestants and Catholics underrepresented in this treatment population. The authors speculated on a number of explanations for this finding,

including the acculturation of the various religious groups, socioeconomic status, the ways in which members of different religious groups typically handle personal difficulties, and bias on the part of intake physicians and psychotherapists due to their attitudinal and background characteristics.

Similar findings, but findings based on data from outpatient settings, came from a study by Weintraub and Aronson (1974). These researchers surveyed a select group of psychoanalysts in a metropolitan area regarding the religious characteristics of their patients. They learned that Jewish individuals were overrepresented and Catholics were underrepresented in the analysts' caseloads. In addition, there was an insignificant trend for patients to choose analysts of their own religious affiliations. Due to methodological flaws and inadequate descriptions of various procedures, their findings must be viewed with caution. However, because Weintraub and Aronson's findings were so similar to those of Eichler and Lirtzman, they may be considered as additional evidence that religion is significantly associated with participation in psychotherapy.

Kandel (1966) investigated the type of patients who were offered psychotherapy in a small state mental hospital. She learned that non-Catholics were more likely to be in therapy than Catholics. Regardless of the therapist's own religion, he or she saw more Protestant than Catholic patients. Kandel speculated that because Catholics are most often from the lower social strata, the religious differences in the proportion of patients in psychotherapy were due, in part, to social class differences. She expressed the belief that religion only played a significant role in the selection for therapy of patients from the

lowest two classes. Marx and Spray (1972) examined factors affecting the selection of therapy patients in private practice settings. They hypothesized, "Since religious belief systems provide systematically organized world views, religion should provide a basis for the selective recruitment of patients by psychotherapists" (p. 423).

They also speculated that this recruitment process should be more related to therapists' religious backgrounds (as measured by their fathers' religious affiliations) than to their current religious orientations.

Unlike Kandel, Marx and Spray found that religion was an important variable influencing the mutual selection process between therapists and patients. Their data suggested that religion was a stronger influence on patient selection than social class. As expected, this religious homophily was based more on therapists' religious origins than on their current religious perspectives.

Thus, it seems that among religious groups, Jews are the most likely and Catholics the least likely to be in psychotherapy. It should be noted that a causal relationship cannot be assumed from this finding. It may be that therapists select patients on the basis of religious affiliation, but it is also possible that individuals of certain religious orientations are most likely to develop psychological problems, are most likely to seek therapy, or are most likely to remain in therapy. The finding that psychotherapists and their patients tend to be of the same religious orientation tends to support the first hypothesis: that there is a religious bias in the selection of patients for psychotherapy. However, in outpatient settings, referral patterns could also account for this finding. Clinical analogue experiments

could help support or eliminate the bias hypothesis. To date, no such studies have been reported in the literature.

While it has typically been found that Jews are overrepresented in psychotherapy, as compared to other religious groups, Frumkin and Frumkin (1957) discovered that Protestants had the highest rate of admission and Jews the lowest rate of admission to Ohio state prolonged-care mental hospitals.

Thus, Jews are apparently most often treated with private, out-patient, individual psychotherapy, while Protestants seem to be treated in public hospitals. Again a number of explanations could account for these findings, including differing financial resources across religious groups, differing means of coping with difficulty, different referral patterns, and selection biases.

The evidence regarding a possible relationship between religion and psychiatric diagnosis is equivocal. Eichler and Lirtzman (1956) found that the frequencies of diagnosed psychoses and neuroses did not differ across religious groups in a Veterans Administration hospital. Jennings (1972) stated that religion appeared unrelated to diagnosis among outpatients at a southwestern hospital. Roberts and Myers (1968, pp. 139-147) found no differences between religious groups in the distribution of diagnosed schizophrenia, affective disorders, psychoses with mental deficiency, or senility. However, they did discover significant differences in the incidences of total mental illness, neuroses, and alcohol and drug addiction among religious sects. Neuroses were more prevalent among Jews, while alcoholism was most prevalent among Catholics. The distribution of organic disorders approached statistical significance. Weintraub and Aronson (1974)

learned that homosexuality was more often noted among Protestants and Catholics than among Jews, while frigidity was a more common label for Jewish women than for Protestant women. In general, researchers who categorized diagnosis into a few broad classes such as psychoses, neuroses, and personality disorders have failed to find a relationship between patient religion and diagnosis. Those who either analyzed a broader spectrum of diagnostic categories or subdivided broad categories into more specific labels have found patient religion to be related to diagnosis.

The only researchers who have studied the possibility of a relationship between the clinician's religion and his diagnoses of patients are Weintraub and Aronson (1974). They concluded, "We have no evidence to indicate that the analyst's religious background affected his choice of diagnostic or symptom categories in any direction" (p. 106). However, Weintraub and Aronson failed to justify this conclusion. In light of this and the numerous other flaws in the article, it is the opinion of this reviewer that this negative finding should be taken lightly. It is by no means sufficient evidence to rule out the possibility that a clinician's religious orientation affects his diagnoses.

The question of whether a counselor's religious stance affects his counseling behavior has been addressed in two studies. Van Slyke (1971) found that rejection of literal interpretations of biblical writings was related to secondary school counselors' use of understanding responses (as measured by the Test of Counselor Attitudes), but that type or lack of religious affiliation, active religious participation, persistence of religious affiliation, and perception of the importance of religious affiliation were unrelated to the use of understanding

responses. Burns (1972) learned that strength of religious values was unrelated to group therapist trainees' amount, style, and content of group leader participation, as measured by a questionnaire. Thus, according to most indices of religious beliefs and practices, a counselor's religion has little effect on his self-reported therapeutic behavior. However, it should be stressed that in the two studies reviewed here, counseling behavior was assessed with self-report instruments. Whether a counselor's self-reports of his therapeutic techniques coincide with the way he actually behaves in the therapy hour is open to question. Thus, whether more objective measures of counseling behavior would show effects due to counselor religion is at this time an unanswered question.

It is now appropriate to summarize what has been learned about the effects of religion on various aspects of mental health practice. It has been fairly well established that the distribution of religious groups in various treatment populations does not parallel the distribution of those groups in the population as a whole. Members of the Jewish faith are overrepresented in psychotherapy caseloads. Catholics are underrepresented in these treatment populations, and Protestants seem to fall somewhere in between. In addition, psychotherapists and their patients tend to be of the same religious orientation, particularly in outpatient settings, where therapists and patients are free to choose each other. Therapists' religious backgrounds, which presumably represent affective states, seem to be more strongly related to their patients' religious affiliations than their present religious stances, which presumably are more cognitively determined.

Although Jews are more likely than Protestants, who are in turn more likely than Catholics, to be in psychotherapy, there is some evidence that Protestants are more likely to be admitted to state hospitals than Jews. Patient religion seems to be unrelated to psychiatric diagnosis when diagnosis is considered only in terms of a few broad categories such as psychoses, neuroses, and character disorders. However, when either a broader range of diagnostic categories or finer discriminations among diagnostic labels have been considered, patient religion has been shown to be related to psychodiagnosis. There has been very little work done regarding the relationship between clinicians' religious affiliations and their diagnoses, and there is absolutely no evidence on any possible interaction effect between clinicians' and patients' religious orientations which may be related to diagnosis.

The only studies in this area which have not employed ex post facto designs are those which revealed no relationship between counselors' self-reported religious affiliations, activities, values, etc., and their self-reports of their counseling styles. There have been no clinical analogue experiments in the broad area of religious bias in mental health practice. Thus, at the present, we know that there are various relationships between patient religion and different indices of clinical practice, but we do not know what causes these relationships. Experimental research is clearly needed to either support or weaken the hypothesis that the relationships between religion and participation in psychotherapy, hospital admission rates, and psychodiagnosis are due in part to clinician bias. Regarding possible religious bias in psychodiagnosis, clinical analogue experiments which present clinicians with various types of diagnostic tasks

could pinpoint where in the diagnostic process such bias operates, if it in fact exists.

Ambiguity of the task: A qualifying note. At the beginning of this review, the argument was presented that because at certain points in the diagnostic process there is some degree of ambiguity in the objective data available to the clinician, the opportunity exists for the clinician to contribute his subjective evaluations to the diagnostic data. Thus, biasing factors may creep into the process. According to this argument, the greater the ambiguity in the data, the greater the opportunity for the clinician to exercise his subjective judgment, and thus the greater the possibility of the diagnosis being biased. Two research findings support this deduction. Haase (1956) found that there was less social class bias in Rorschach interpretations on items defined as "less speculative" and more directly connected to the psychogram than on more global, speculative outcome indices. Routh and King (1972) found that the biasing effect of patient social class decreases at higher levels of psychopathology and with more depressed mood: that is, when the patient displays more clear evidence of maladjustment. Thus, social class bias is minimized when the diagnostic task is relatively straightforward and objective; it is exacerbated when the task is ambiguous and requires subjective judgments on the part of the diagnostician. In the opinion of this reviewer, this principle probably applies to all forms of diagnostic bias covered in this review. Bias, regardless of the source, probably has the greatest chance in influencing psychodiagnosis when the data available to the clinician are ambiguous or inconclusive. Bias is more likely to operate in diagnosing "borderline" patients: those whose psychopathology

does not clearly fall into any one diagnostic category. Clinicians are confronted with such patients in actual practice. These are the cases in which clinicians' assessments are likely to be biased. Until either diagnostic procedures and nosologies are refined and made more objective and precise, or clinicians become aware of and gain control over various sources of diagnostic bias, the systematic misdiagnosis of borderline patients is likely to continue.

Summary of the State of the Art

It has been argued that the diagnosis of emotional disorders is not a completely objective procedure. At various points in the diagnostic process, the clinician must exercise his subjective judgment in selecting from, organizing, and interpreting a mass of sometimes ambiguous data. At these points, there is the possibility that the clinician will commit errors in judgment. If these errors occur on a random basis and in random directions, no particular subgroup of psychiatric patients will be victimized by discrimination. If, on the other hand, these errors are systematically related to patient and/or clinician demographic and/or attitudinal variables, then one would conclude that there is bias in psychodiagnosis. Several theorists, the most notable of whom is Szasz (1968, pp. 22-30), have presented arguments which lead to the hypothesis that diagnostic errors do not occur on a random basis. Szasz and others have postulated that mental illness is a form of deviance from sociocultural norms. The evaluation (diagnosis) of mental illness is therefore dependent on the moral, social, religious, legal context in which the deviant behavior occurs. The diagnostician functions within the mental health system, which in turn exists in the larger context of society. The diagnostician's

sociocultural values would then be expected to influence his practice. In addition, other ways in which a patient deviates from social standards (for example, his socioeconomic status, his religious beliefs, or his life style) may be confounded with his abnormal behavior in influencing clinical judgments which are made about him. So, the social value aspects of abnormal behavior and the social functions of the mental health system would be expected to combine in producing psychodiagnostic biases against certain groups.

There is a growing mass of research findings in support of the above argument. Researchers are identifying demographic and attitudinal variables which are related to psychiatric decisions, and they are eliminating variables which do not appear related to psychiatric decisions. Evidence of relationships between status variables and psychiatric evaluations is often supplemented by clinical analogue experiments. Positive findings from such experiments support the notion that the relationships between status variables and psychiatric decisions are due at least in part to bias.

It has been extensively demonstrated that social class is related to psychiatric decisions. Patients from the lower social strata are more often judged to be mentally ill, are more often diagnosed as psychotic (as opposed to neurotic), are more often offered forms of treatment traditionally associated with poor outcome, and are less often offered psychotherapy than their middle and upper class counterparts. Psychotherapists tend to select patients of their own socioeconomic level. In some situations, diagnosticians seem to expect lower levels of psychological functioning in lower class patients, and thus overlook certain symptoms. Experimental studies have largely

confirmed a bias operating against lower class patients when clinicians rate interviewed patients, interpret psychological tests, rate the adjustment of patients depicted in case reports, and recommend treatment. Highly educated, verbal, insightful patients are preferred by psychotherapists. Occasionally, reverse discrimination (against the upper classes) has been found: The reason for this is unclear. The interaction between patient and clinician social class has not been adequately investigated.

Clinicians practicing in different national settings tend to diagnose patients differently. However, narrowing the focus down to racial groups within one country, the evidence is ambiguous. At present, it appears that there is no consistent racial or ethnic bias operating within the mental health system in the United States. If race is a biasing factor in psychodiagnosis, its influence is complex and not yet well understood.

Sex of clinician and sex of patient alone do not seem to consistently bias clinical assessments. However, attitudinal and personality variables such as political orientation and traditionalism appear to interact with gender and with patients' adherence to sex role stereotypes to cause some bias in psychiatric evaluations. Specifically, politically conservative clinicians with traditional sex role attitudes are severe in their judgments of patients who do not conform to their socially-dictated sex roles, and clinicians who do not possess traditional sex role beliefs, as well as female clinicians in general, are generous in their assessments of patients who deviate from their prescribed sex roles. In addition, there is some evidence of a double standard of mental health, such that feminine characteristics are perceived by

mental health professionals as being less healthy than masculine characteristics.

Patient marital status may bias predictions of dangerousness and selection of patients for psychotherapy, but it does not appear to be related to diagnosis. In most areas of clinical practice, patient age does not seem to bias evaluations and decisions.

Clinicians' experience level alone does not influence their evaluations of patients, but extensive clinical experience seems to reduce, but not eliminate, social class bias. There is some evidence that a clinician's theoretical orientation affects his diagnostic practice, and the setting in which he works (inpatient vs. outpatient) seems to have some effect on his diagnoses of patients, although the direction of this effect has not been conclusively established. Suggestions of a previous diagnosis of a patient by high prestige figures tend to alter mental health workers' evaluations of that patient. The mediating influences of clinician experience level and professional affiliation on suggestion effects are not yet well understood. Attempts to identify other biasing variables related to professional affiliation and practice have failed to produce significant results.

Attempts to isolate psychodiagnostic bias due to clinician personality characteristics have in general been unsuccessful. A few researchers have found personality traits to affect clinical evaluations, but these results do not fit together into any sort of logically integrated picture. However, it has been demonstrated that when a clinician and patient are of divergent political attitudes and life styles (for example, a "square" rater and a "hip" patient), the clinician's adjustment ratings of that patient tend to be unusually severe.

Regarding religion as a possible biasing variable in psychodiagnosis, no clinical analogue studies have been performed: All of the research has been retrospective. Jewish individuals are more likely than Protestants to be in psychotherapy, and Protestants are more likely than Catholics to be in therapy. In contrast, there is some evidence that Protestants have the highest state hospital admission rate, while the admission rate is lowest among Jews. That Jews tend to be treated with psychotherapy while Protestants tend to be hospitalized suggests a religious bias in treatment recommendations. However, the ex post facto nature of the studies which provided this evidence does not allow one to rule out other explanations for the findings. Additional evidence of a treatment recommendation bias based on religion comes from the finding that psychotherapists and their patients tend to be of the same religious affiliation, and that therapist religious background correlates even more highly than therapist present religion with patient religion. But again, causal statements cannot be made without experimental evidence.

Patient religion has been found to be unrelated to diagnosis when only a few broad diagnostic categories have been considered. Patient religion does relate to diagnosis when diagnosis is considered either in its full range or in terms of fine diagnostic discriminations. Experimental research is needed to determine whether this relationship could be due to diagnosticians' bias. Research is also needed to investigate the roles of the clinician's religion and the interaction between the clinician's religion and the patient's religion in psychodiagnosis.

Finally, it should be noted that social class bias is stronger when the diagnostic task is relatively ambiguous, and weaker when the task is more clear cut. In the opinion of this reviewer, this principle probably applies to all forms of diagnostic bias. Thus, there are two ways in which bias, regardless of the source, may be removed from the psychodiagnostic process. First, the process could be made more objective and straightforward, such that the diagnostician's subjective judgment would not be involved. However, it is unlikely that this will be accomplished in the near future. Thus, the second approach must be pursued: identifying sources of diagnostic bias through research, and training clinicians to be aware of and to control their biases. Means of accomplishing this training are untried and unresearched at this time. Researchers are still involved with the task of identifying sources of psychodiagnostic bias. However, it is hoped that clinical training programs will soon begin to devote themselves to developing and evaluating ways of training diagnosticians to master the biases which have already been identified.

METHOD

Subjects

Selection of subjects. The population relevant to this study consisted of all psychologists licensed to practice in the state of Utah. A list of all psychologists licensed to practice in Utah as of April 4, 1977 was obtained from the State of Utah Department of Business Regulation, Department of Registration. The names and addresses of 232 psychologists were on this list. Four of these psychologists were excluded from the population. These individuals were faculty members in the Professional Scientific Psychology program at Utah State University. They were familiar with the purposes and design of this study, and thus could not be expected to provide valid, naive responses as subjects. The population for this study then consisted of 228 psychologists who were officially licensed to practice in Utah as of April 4, 1977.

All 228 members of the population were invited to participate in this research project. They were sent (by mail) a cover letter which described the purpose of the study as "investigating patterns of psychodiagnosis in the state of Utah in relation to certain demographic and attitudinal variables." Included with the cover letter was a four-page, 28 item questionnaire designed to elicit demographic and attitudinal information. On the first page of the questionnaire, the psychologists were asked to indicate whether or not they wished to participate in the study. Those who were willing to participate were promised a copy of the results of the study if they so desired,

and were asked to complete the remainder of the questionnaire. The cover letter and questionnaire appear in Appendix A. Of the 228 members of the population, 120 (52.6%) returned the questionnaire. Of these 120, 55 (45.8%) indicated that they were willing to participate.

Approximately one month later, a second copy of the questionnaire and another cover letter were mailed to those 108 individuals who had failed to return the first questionnaire. The follow-up letter emphasized the importance of obtaining an accurate count of the number of participants in the study, and urged the psychologists to indicate whether or not they were willing to participate. The text of this letter appears in Appendix B. The questionnaire accompanying the letter was identical to the first questionnaire, except that it estimated the subjects' time commitment to be 1/2 hour, rather than 2 hours, as was indicated on the initial questionnaire. The follow-up questionnaire was returned by 58 (53.7%) of the 108 psychologists to whom it was sent. Of these 58, 27 (46.6%) indicated that they would participate in the project.

Combining the returns from the initial and follow-up questionnaires, 178 (78.1%) of the 228 members of the population returned a questionnaire. Of these 178, 82 (46.1%) agreed to participate in the study. At this point, then, 82 (36.0%) of 228 psychologists in Utah had made commitments to be subjects in this study.

The 82 psychologists who had agreed to participate were sent four case reports to read and diagnose, along with a cover letter and a form on which they were to indicate their diagnoses of the cases. These materials appear in Appendix C. Responses were received from 40 (48.8%) of the 82 subjects. One of these respondents acknowledged receiving

the materials, but withdrew his commitment to participate due to his discomfort with the format of the case reports. Approximately 6 weeks after the case reports were mailed, reminder postcards were sent to 38 of the 42 nonrespondents.¹ These postcards set a firm deadline by which the diagnosis forms were to be returned. The text of these postcards is presented in Appendix D. Of the 42 nonrespondents, eight returned diagnosis forms. Of the 34 subjects who failed to respond to the postcard, 14 were contacted directly by telephone; telephone messages were left for 12 others (eight could not be reached). At this time, one individual withdrew due to illness. The telephoning procedure elicited 12 additional responses.

All-in-all, of the 228 psychologists who comprised the population for the study, 60 (26.32%) provided usable data. These 60 individuals comprised the final sample for this study.

Subject characteristics. Four subjects were females; 56 were males. Subjects ranged in age from 31 to 72 years, with the mean age being 44.42. One subject held an M.A. degree; five held Ed.D. degrees; the rest had Ph.D.'s. All of the subjects indicated that they were presently involved in clinical or counseling work: 36 (60%) full time, 24 (40%) part time. The mean number of years of post-academic clinical or counseling experience was 9.93, with a range of 0 to 26 years. The mailing addresses of six of the subjects were in states other than Utah; 54 subjects had mailing addresses within Utah. Table 1 indicates the number of subjects who were employed by various types of facilities at the time they completed the questionnaire.

¹The author reminded two of the nonrespondents in person. The remaining two individuals returned their questionnaires and were sent case reports after the postcards were mailed.

Table 1
 Number of Subjects Employed by
 Various Types of Facilities

Type of Facility	Number of Subjects
College or University	20
Private Practice	20
Mental Health Clinic	7
V. A. Hospital	6
School or School System	3
State Mental Hospital	2
State Division of Health	2
General Medical Hospital	1
Prison	1
State Division of Alcohol and Drugs	1
LDS Social Services	1
Retired	1

Note. Five subjects indicated that they were employed simultaneously by two facilities.

Some of the psychologists who did not participate in the study indicated on the unanswered questionnaire that they did not do diagnostic work in their practices, that they were not familiar with the diagnostic typology of the American Psychiatric Association's DSM-II (1968), or that they were educational or industrial (not clinical) psychologists. Therefore, it is likely that participants differed from nonparticipants in that participants were more competent in the area of psychodiagnosis, and provided a better representation of psychodiagnostic patterns in Utah.

Religious characteristics of subjects. Psychologists in the sample were grouped on six religion-related dimensions in order to test the hypotheses of this study. The dimensions were the psychologists', their mothers', and their fathers' religious affiliations (LDS vs. Other) and religious activity levels (Active vs. Inactive). The psychologists indicated their placements on these dimensions on the questionnaire. The number of subjects in each category of religious affiliation (LDS psychologists, psychologists with LDS mothers, psychologists with LDS fathers, Other psychologists, psychologists with Other mothers, psychologists with Other fathers) is indicated in Table 2. Table 3 indicates the number of subjects in each category of religious activity level (Active psychologists, psychologists with Active mothers, psychologists with Active fathers, Inactive psychologists, psychologists in Inactive mothers, psychologists with Inactive fathers). Four subjects provided incomplete information regarding their parents' religious preferences and/or activity levels: thus the row totals in Tables 3 and 4 do not all equal 60.

Table 2
 Number of Subjects of Various Religious Affiliations and
 with Parents of Various Religious Affiliations

Group	Religious Affiliation		Total
	LDS	Other	
Psychologists	39	21 ^a	60
Psychologists' Fathers	37	21 ^b	58
Psychologists' Mothers	38	21 ^c	59

^a"Other" category consisted of 11 "none," 2 "Jewish," 1 "Catholic," 1 "Protestant," 1 "Episcopal," 1 "Methodist," 1 "Lutheran," 1 "Zen Buddhist," and 1 "Humanism."

^b"Other" category consisted of 5 "none," 3 "Jewish," 3 "Catholic," 2 "Lutheran," 2 "Methodist," 1 "Protestant," 1 "Presbyterian," 1 "Baptist," 1 "United Church of Christ," 1 "Unitarian," and 1 "Brethren."

^c"Other" category consisted of 5 "Catholic," 3 "Methodist," 3 "Jewish," 3 "Protestant," 3 "None," 1 "Presbyterian," 1 "Lutheran," 1 "Brethren," and 1 "United Church of Christ."

Table 3
 Number of Subjects with Different Religious Activity Levels
 and with Parents of Different Religious Activity Levels

Group	Religious Activity Level		Total
	Active	Inactive	
Psychologists	36	24	60
Psychologists' Fathers	33	24	57
Psychologists' Mothers	44	16	60

Note. Subjects rated their, their mothers', and their fathers' religious activity levels on a 4-point scale. "Very active" and "fairly active" were combined to form the "Active" category; "Not very active" and "Inactive" were combined into the "Inactive" category.

Materials and Measures

Questionnaire. Information regarding subjects', their mothers', and their fathers' religious affiliations and activity levels was obtained by means of a questionnaire. Various issues had to be dealt with in constructing the questionnaire. These issues and their solutions are outlined in the following paragraphs.

The author believed that in order to obtain valid data, the subjects had to be naive regarding the specific hypotheses of the study. If the psychologists in the sample knew that religion was the crucial variable in the study, they probably would have been able to cognitively control any religious biases in their diagnoses. The diagnoses obtained in this experimental situation would not be a true representation of the psychologists' everyday diagnostic practices. Even if psychologists were religiously biased in their clinical evaluations, this bias would not manifest itself in this experimental situation. Thus, the study had to be designed such that the psychologists were unaware of the specific purposes of the project while they were diagnosing the case reports.

There were three ways of ensuring the necessary naivete while still obtaining information on the subjects' religious characteristics. First, it may have been possible to obtain information regarding psychologists' religious characteristics in unobtrusive ways, such as consulting friends, colleagues, or churches. However, the author believed this practice to be unethical. A second approach would have been to have the psychologists diagnose the case reports before asking them about their religious characteristics. However, it was anticipated that had this approach been taken, many subjects would have been

seriously offended about the deception, and thus would have asked to withdraw their participation in the project. Thus, the approach that was employed involved having the psychologists provide information regarding their religious stances and backgrounds on a questionnaire before having them diagnose the case reports. In order for this approach to be successful, the questionnaire had to be constructed such that its content did not reveal that religion was the important variable. This was accomplished in two ways. First, the cover letter which accompanied the questionnaire stated the purpose of the study in vague terms. For ethical reasons, psychologists were allowed to request a copy of the final results of the study, so that they would eventually be able to examine the specific hypotheses under investigation. Second, the questionnaire itself was constructed such that questions dealing with religious variables were intermixed with questions asking for demographic information and questions eliciting political and sex-role attitudes.

The questionnaire underwent several revisions during its development. Each revision was presented to a small sample of psychologically sophisticated individuals who were not included in the population for the study (faculty members in the Analysis of Behavior program at Utah State University and graduate students in psychology). If, after reading the questionnaire and cover letter, these individuals were able to identify religion as the significant variable, their suggestions for revising the questionnaire were elicited. The questionnaire was then revised and submitted to a different group of individuals. The cover letter and questionnaire in their final form appear in Appendix A. When this form of the materials was pretested, pretest subjects typically

guessed the purpose of the study to be "something to do with political-religious-sex-role attitudes." This was taken as evidence that the purpose of the study was adequately disguised.

Of the 28 questionnaire items, six were relevant to the hypotheses of the study. These items are presented and discussed below.

4. What is your religious preference? _____

16. How would you describe your present level of participation in the activities of your religion? (Check one:)

- Very active
- Fairly active
- Not very active
- Inactive

21. What was your father's religious preference? _____

22. How would you describe your father's level of participation in the activities of his religion? (Check one:)

- Very active
- Fairly active
- Not very active
- Inactive

25. What was your mother's religious preference? _____

26. How would you describe your mother's level of participation in the activities of her religion? (Check one:)

- Very active
- Fairly active
- Not very active
- Inactive

These items are numbered as they were on the questionnaire. Refer to Appendix A to see their placement in the context of the entire questionnaire. It was indicated on the questionnaire that the items regarding subjects' parents' religious practices referred to the period of time when the subjects were under the age of 18. To facilitate data analysis, responses to items 4, 21, and 25 were dichotomized into "LDS" and "Other" categories. When psychologists indicated no religious preference for themselves, their fathers, or their mothers, the appropriate individuals were arbitrarily assigned to the "Other" category. For items 16, 22, and 26, subjects were left to define the categories themselves, for three reasons: to avoid making the questionnaire overly cumbersome, to avoid attracting undue attention to the items, and because normative definitions of the various activity levels differ across religious sects (an "active" Mormon devotes more time to religious practices than an "active" Methodist). The "Very active" and "Fairly active" levels were combined into an "Active" category; the "Not very active" and "Inactive" levels were combined into an "Inactive" category, after the data were collected. Individuals with no religious preference were considered "Inactive."

Case reports. Four case reports were constructed. Each psychologist in the sample was asked to diagnose all four cases. This number of reports was arrived at as a compromise involving two considerations. First, as discussed in the "Introduction" section of this paper, it is possible that religious bias operates in diagnosing only certain types of cases, or that religious bias in diagnosis operates in different directions depending on the type of case. Thus, employing a large number of cases would provide the best overall picture of religious bias in

psychodiagnosis. However, the more cases psychologists are asked to diagnose, the greater the time involvement required of them. Time is valuable to professional psychologists, and asking for too much of their time is likely to reduce the number who are willing to participate. Thus, by presenting four cases to diagnose, it was hoped that enough psychologists would participate to allow valid data analysis, and that an adequate representation of religious bias in psychodiagnosis (if any such bias exists) would be obtained.

The case reports were constructed according to a more or less standard outline for psychological evaluations. The reports included identifying information, a list of tests administered, referral reason, background information (case history), behavior observations, psychological test interpretations, and summary. The psychological tests which were interpreted consisted of a standard battery including the Wechsler Adult Intelligence Scale (an intelligence test), the Bender Motor Gestalt Test (a screening device for neurological impairment as well as a projective personality instrument), the Minnesota Multiphasic Personality Inventory (a personality inventory), the Rorschach Inkblot Test, the Rotter Incomplete Sentences Blank, and human figure drawings (projective personality assessment devices). The task of diagnosing these cases was intended to be an experimental analogue of the clinical task of integrating background, observational, and psychological test data about clients into formal diagnostic labels.

Each case report was designed to represent a client whose symptomatology is somewhat ambiguous. There had to be enough ambiguity in each report to permit alternate diagnoses, yet there had to be enough information so that psychologists would be willing to venture diagnoses.

The fact that none of the subjects explicitly refused to diagnose the cases because of inadequate information and the fact that there was considerable variability in the diagnoses assigned to each case indicate that the cases represented appropriate combinations of comprehensiveness and ambiguity.

Each of the four cases was written in four forms. In one form, the client was described as being active in the LDS church. In the second form, the client was affiliated with the LDS church, but no longer participated actively in religious activities. In the third form, the client was described as being actively involved in a religious sect other than the LDS faith (Catholic in two of the cases, Methodist in one case, Presbyterian in one case). The "Other" religion was varied across the four cases to allow for broader expression of any possible religious bias in psychodiagnosis. The Roman Catholic faith was represented twice, as this is the second most prevalent religion in Utah. In the fourth form, the client belonged to a non-LDS religious sect, but no longer participated actively in religious activities. All other information was identical across the four forms of each of the four cases.

As will be discussed later, each psychologist received a case in each of the four forms to diagnose. Thus, because each subject received four cases with four different religious stances, there was another opportunity for the subjects to guess that religion was the crucial variable at this stage of the project. This would be undesirable, for reasons discussed above. In order to guard against this happening, a sample package of the four cases, each with a different religious orientation, was presented to a small sample of individuals. The

individuals were asked to read the materials and describe the clients depicted in the reports. The fact that religion was not mentioned in their descriptions is taken as indirect evidence that subject naivete was maintained through this phase of the investigation.

The "clients" depicted in the case reports were purely fictitious. The basic ideas for the cases were formulated by the author. The author received guidance in writing specific aspects of the reports from a variety of sources (Beck, Beck, Levitt, & Molish, 1961; Beck & Molish, 1967; Blatt & Allison, 1968, pp. 421-460; Deutsch & Murphy, 1955; Duckworth & Duckworth, 1975; Gilberstadt & Duker, 1965; Hutt, 1968, pp. 397-420; Swensen, 1965, pp. 609-653). Each "client" was given a fictitious name for the purpose of identification. "Joyce J." was depicted as a 24 year old female who presented symptoms of depression, listlessness, apathy, dissatisfaction with her marriage and with sexual intercourse, dependency, and manipulative behavior. Joyce became stuporous after being hospitalized. Her religion in the four forms of her report was active LDS, inactive LDS, active Presbyterian, and inactive Presbyterian. "Michael M." was described as a 21 year old college student who was intellectual, depressed, anxious, socially inhibited, and prone to "nervous habits." His religion in the four forms of his report was active LDS, inactive LDS, active Methodist, and inactive Methodist. "David D." was a 16 year old male court referral who was involved with a group of delinquent adolescents. His religion in the four forms of his report was active LDS, inactive LDS, active Roman Catholic, and inactive Roman Catholic. "Susan S." was depicted as a 45 year old woman with symptoms of depression and alcoholism. Her religion in the four forms of her report was active LDS, inactive LDS,

active Catholic, and inactive Catholic. The case reports varied in length from 1,007 words to 1,439 words, with a mean length of 1,266 words. The full texts of all four case reports appear in Appendix C. (In Appendix C, the four forms of each case are condensed into a single report. The sentence which indicates each client's religion appears in four forms in each report, with the last three forms in parentheses.)

Diagnosis. Psychologists were asked to diagnose the case reports according to the typology presented in the American Psychiatric Association's DSM-II (1968). This typology is the standard diagnostic scheme used in the United States. Therefore, the use of this typology is valid in the sense that it represents actual clinical diagnostic practice. However, in another sense, it was the validity of this diagnostic scheme that was investigated by this study. To the extent that diagnoses are influenced by factors other than patients' signs and symptoms (such as religious biases), the diagnostic scheme is "invalid."

Psychologists were asked to record their diagnosis of each case report immediately after reading that report on a form which was provided for them. The form, which was mailed to the psychologists with the case reports, appears in Appendix C. The psychologists were asked to record only one diagnosis for each case. In those instances in which this instruction was not adhered to, the first diagnosis listed was used for data analysis; the second diagnosis was discarded.

Summary of measures. The independent variables in this study were psychologists' religious characteristics (their, their fathers' and their mothers' religious affiliations and activity levels), and clients' religious characteristics (affiliations and activity levels).

Psychologists' religious characteristics were obtained by a questionnaire. Clients' religious characteristics were written into case reports, such that the report on each of four fictitious clients appeared in four forms, which varied only on religious affiliation (LDS vs. Other) and activity level (Active vs. Inactive).

The dependent variable was diagnosis. Psychologists were asked to diagnose each case report according to the typology of the American Psychiatric Association's DSM-II (1968), and to record the diagnoses on a form provided for that purpose.

Research Design and Procedure

Design. This study utilized a factorial design. There were two types of independent variables: psychologist religious characteristics and client religious characteristics. Psychologist religious characteristics included psychologists' religious affiliations and religious activity levels, psychologists' mothers' religious affiliations and religious activity levels, and psychologists' fathers' religious affiliations and religious activity levels. Client religious characteristics included client religious affiliations and religious activity levels. All of these independent variables were dichotomous: Religious affiliation was dichotomized into "LDS" and "Other" categories; religious activity level was dichotomized into "Active" and "Inactive" categories.

The dependent variable was the formal diagnostic label assigned to fictitious clients by psychologists. For statistical reasons which are discussed in the "Results" section, the independent variables were analyzed one or two at a time regarding their effects on diagnosis.

Procedure. This study was conducted according to a clinical analogue model. That is, psychologists were asked to perform a task which was

designed to be an experimental analogue of one aspect of actual clinical diagnostic practice.

All potential subjects from the population of licensed psychologists in Utah who were naive regarding the purpose of the study were invited, by means of a mailed cover letter and questionnaire, to participate in the project. The cover letter was signed by the author, and by Dr. Keith T. Checketts, the author's Masters committee chairman and Professor of Psychology at Utah State University. Those who were willing to participate were asked to complete and return the questionnaire. Those who preferred not to participate were asked to return the questionnaire unanswered. Those psychologists who did not return the questionnaire were sent a follow-up letter and another copy of the questionnaire approximately 1 month later, with essentially the same instructions. The first cover letter and questionnaire may be found in Appendix A; the follow-up letter appears in Appendix B. Information regarding participants', their mothers', and their fathers' religious affiliations and activity levels was obtained from their questionnaire responses.

Case reports on four fictitious clients were constructed. Each of the four reports was written in four forms which varied only in terms of the client's reported religious practices: the client was either active in the LDS faith, inactive in the LDS faith, active in another religious faith, or inactive in another religious faith. Packages of the four cases were prepared such that each package contained a case in each of the four religious forms. There were 24 such combinations of case reports.

Each of the 82 psychologists who agreed to participate in the study and completed the questionnaire was assigned to one of the 24 packages

of case reports, by the use of a table of random numbers. Approximately 1 month after the follow-up questionnaire was mailed out, each of these psychologists was sent the appropriate package of four case reports, a cover letter, and a form for recording diagnoses. Thus, each of the 82 psychologists received case reports on four different fictitious clients, with each client having a different religious stance. The psychologists were asked to read each report and record the one primary or most likely diagnostic label for each case on the form provided. Subjects were instructed to assign their diagnoses according to the nosological scheme of the American Psychiatric Association's DSM-II (1968). After completing this task, the subjects were asked to return the completed diagnosis form to the experimenter in a stamped, self-addressed envelope which was provided. The case reports, the diagnosis form, and the accompanying cover letter are reproduced in Appendix C.

Psychologists who had agreed to participate in the project but who did not return their case diagnoses within 6 weeks were sent a reminder postcard. This postcard is reproduced in Appendix D. Subjects who failed to respond to this technique within 2 weeks were contacted by telephone. Altogether, usable data were obtained from 60 psychologists. These individuals comprised the final group of subjects for this study.

A data sheet was constructed. For each psychologist in the final sample, his, his mother's, and his father's religious affiliations and activity levels, the religious affiliation and activity level of each case report he received, and his diagnoses of the four cases were recorded on the data sheet. The data were then ready for analysis. Data analytic techniques and findings are outlined in the following section.

RESULTS

Overview of Results

The results of this study will be presented in four general sections. First, the range of diagnoses elicited by the four case reports will be presented and discussed. Second, pragmatic and statistical procedures relevant to testing the 14 hypotheses will be discussed. Following this, the findings pertinent to each hypothesis will be presented. Finally, data relevant to one of the hypotheses will be inspected in another manner: according to diagnosis.

Range of Diagnoses

It is recalled that the four case reports were designed to be somewhat ambiguous. It was believed that in order to allow any possible religious bias in diagnosis to operate, the cases needed to be ambiguous enough to permit alternate diagnoses. The range of the diagnoses which were obtained indicates that this minimal degree of ambiguity was achieved. The case reports on Joyce, Michael, David, and Susan elicited 18, 9, 10, and 10 different diagnoses, respectively. Overall, the four case reports evoked 35 separate diagnostic labels (some diagnoses were repeated across cases). These diagnoses and the frequencies with which they were assigned to the various cases appear in Table 4.

As can be seen in Table 4, the case report on Joyce elicited diagnoses ranging from schizophrenia, through affective psychoses, neuroses, and personality disorders, to transient situational disturbances. Michael was diagnosed sometimes as schizophrenic, sometimes as neurotic, and sometimes as having personality disorders. David's

Table 4
Frequencies of Diagnoses Assigned to Case Reports

Diagnosis		Case				
No. ^a	Title	Joyce	Michael	David	Susan	Total
295.0	Schizophrenia, simple type	2	0	0	0	2
295.2	Schizophrenia, catatonic type	1	0	0	0	1
295.24	Schizophrenia, catatonic type, withdrawn	6	0	0	0	6
295.3	Schizophrenia, paranoid type	0	1	0	0	1
295.4	Acute schizophrenic episode	1	0	0	0	1
295.5	Schizophrenia, latent type	1	2	0	0	3
295.74	Schizophrenia, schizo-affective type, depressed	1	0	0	0	1
296.0	Involuntional melancholia	0	0	0	4	4
296.2	Manic-depressive illness, depressed type	2	0	0	1	3
298.0	Psychotic depressive reaction	18	0	0	2	20
300.0	Anxiety Neurosis	1	5	0	0	6
300.1	Hysterical neurosis	1	0	0	1	2
300.13	Hysterical neurosis, conversion type	3	0	0	0	3

Table 4 (continued)

Diagnosis		Case				
No. ^a	Title	Joyce	Michael	David	Susan	Total
300.14	Hysterical neurosis, dissociative type	1	0	0	0	1
300.3	Obsessive compulsive neurosis	0	19	0	0	19
300.4	Depressive neurosis	13	1	0	32	46
300.5	Neurasthenic neurosis	1	0	0	1	2
301.0	Paranoid personality	0	1	1	0	2
301.2	Schizoid personality	2	15	0	0	17
301.3	Explosive personality	0	0	2	0	2
301.4	Obsessive compulsive personality	0	12	0	0	12
301.7	Antisocial personality	0	0	8	0	8
301.81	Passive-aggressive personality	0	0	3	0	3
301.82	Inadequate personality	0	4	1	0	5
301.89	Other personality disorders of specified types	3	0	0	0	3
303.1	Habitual excessive drinking	0	0	0	6	6
303.2	Alcohol addiction	0	0	0	11	11
307	Transient situational disturbances	1	0	0	0	1
307.2	Adjustment reaction of adolescence	0	0	3	0	3
307.3	Adjustment reaction of adult life	2	0	0	1	3

Table 4 (continued)

Diagnosis		Case				
No. ^a	Title	Joyce	Michael	David	Susan	Total
308.4	Unsocialized aggressive reaction of adolescence	0	0	25	0	25
308.5	Group delinquent reaction of adolescence	0	0	15	0	15
308.9	Other reaction of adolescence	0	0	1	0	1
309.13	Non-psychotic OBS with alcohol (simple drunkenness)	0	0	0	1	1
316.3	Dyssocial behavior	0	0	1	0	1

^aDiagnostic numbers and titles are based on the American Psychiatric Association's DSM-II (1968).

labels included personality disorders, behavior disorders of adolescence, transient situational disturbances ("Adjustment reaction of adolescence"), and conditions without manifest psychiatric disorder ("Dyssocial behavior"). Diagnoses of Susan included affective psychoses, neuroses, transient situational disturbances ("Adjustment reaction of adult life"), alcoholism, and non-psychotic organic brain syndrome.

The breadth of diagnoses obtained suggests that the cases were ambiguous enough to allow psychologists to exercise their subjective judgments. This in turn implies that if the psychologists in the sample are biased by religion in their diagnostic practices, such a bias would be elicited by these case reports. However, despite the fact that the cases were designed to be somewhat ambiguous, the tremendous variability in the diagnoses obtained is striking in and of itself. Possible implications of this will be discussed later.

Analytic Procedures

In order to formally test the hypotheses of this study, the data were arranged in two-dimensional frequency count tables. There were 14 hypotheses, each tested on each of the four case reports. Thus, a total of 56 frequency count tables were constructed. In each table, one dimension represented psychologist and/or client religious variables; the other dimension represented diagnostic categories. The number appearing in any given cell of any given table represented the number of times that a particular diagnosis resulted from a particular psychologist and/or client religious status.

The manner in which psychologist and client religious statuses were arranged along one dimension of the tables is discussed below, pertinent to each hypothesis. The arrangements for the first eight

hypotheses were straightforward. Hypotheses nine through 14, which dealt with interactions between psychologist and client religious variables, posed a problem. Ideally, these hypotheses would be tested by arranging the data into three-dimensional frequency count tables, with the three dimensions representing a psychologist religious variable, a client religious variable, and diagnostic categories, respectively. However, there is at this time no widely accepted statistical technique for analyzing such a table. Hence, the data for the interaction hypotheses were compressed into two-dimensional tables. In these tables, one dimension represented various combinations of psychologist and client religious statuses; the other dimension represented diagnostic categories. Again, specifics regarding these arrangements may be found below under the appropriate hypotheses.

Because the dependent variable in this study (diagnosis) provided data in categorical form, chi-square was the appropriate statistical technique (Siegel, 1956, p. 175). Alpha was set at .05. Valid use of the chi-square test requires that expected cell frequencies exceed certain minimum values (Siegel, 1956, p. 178). Because of the tremendous range of diagnoses obtained in this study, the data were distributed too thinly across cells to permit valid use of the chi-square statistic. Therefore, specific diagnostic labels had to be combined into more general diagnostic categories. In most cases, this procedure collapsed the frequency count tables enough to justify the use of chi-square. Specific diagnoses were combined such that the resultant general categories retained conceptual clarity.

For the case of Joyce, the categories used were termed "Psychoses" and "Other." Psychoses were relatively severe diagnoses (that is,

diagnoses connoting high degrees of psychopathology); Other included milder diagnoses. Psychoses included Schizophrenia, simple type (295.0); Schizophrenia, catatonic type (295.2); Schizophrenia, catatonic type, withdrawn (295.24); Acute schizophrenic episode (295.4); Schizophrenia, latent type (295.5); Schizophrenia, schizo-affective type, depressed (295.74); Manic-depressive illness, depressed type (296.2); and Psychotic depressive reaction (298.0). Other included Anxiety neurosis (300.0); Hysterical neurosis (300.1); Hysterical neurosis, conversion type (300.13); Hysterical neurosis, dissociative type (300.14); Depressive neurosis (300.4); Neurasthenic neurosis (300.5); Schizoid personality (301.2); Other personality disorders of specified types (301.89); Transient situational disturbances (307); and Adjustment reaction of adult life (307.3).

For the case of Michael, one category was labeled "Schizophrenia and Personality Disorders"; the other category consisted of "Neuroses." In this case, Schizophrenia and Personality Disorders were harsh diagnoses; Neuroses were more lenient diagnoses. Schizophrenia and Personality Disorders included Schizophrenia, paranoid type (295.3); Schizophrenia, latent type (295.5); Paranoid personality (301.0); Schizoid personality (301.2); Obsessive compulsive personality (301.4); and Inadequate personality (301.82). Neuroses included Anxiety neurosis (300.0); Obsessive compulsive neurosis (301.4); and Depressive neurosis (300.4).

For the case of David, diagnoses were dichotomized into two categories: "Personality Disorders and Unsocialized Aggressive Reaction" (relatively severe diagnoses), and "Other" (less severe diagnoses). Personality Disorders and Unsocialized Aggressive Reaction

included Paranoid personality (301.0); Explosive personality (301.3); Antisocial personality (301.7); Passive-aggressive personality (301.81); Inadequate personality (301.82); and Unsocialized aggressive reaction of adolescence (308.4). The Other category included Adjustment reaction of adolescence (307.2); Group delinquent reaction of adolescence (308.5); Other reaction of adolescence (308.9); and Dyssocial behavior (316.3).

Finally, for the case of Susan, diagnoses were grouped under "Alcoholism" and "Other." The essential distinction here was whether psychologists chose to comment on Susan's heavy drinking or on her other symptoms. Alcoholism included Habitual excessive drinking (303.1); Alcohol addiction (303.2); and Non-psychotic OBS with alcohol (simple drunkenness) (309.13). The Other heading encompassed Involutional melancholia (296.0); Manic-depressive illness, depressed type (296.2); Psychotic depressive reaction (298.0); Hysterical neurosis (300.1); Depressive neurosis (300.4); Neurasthenic neurosis (300.5); and Adjustment reaction of adult life (307.3).

For some of the interaction hypotheses, combining diagnoses according to the above scheme still failed to provide adequately large expected cell frequencies. In these instances, categories involving combinations of psychologist and client religious stances had to be coupled. These procedures will be evident below as findings relevant to each hypothesis are presented.

Findings Specific to Each Hypothesis

The 14 hypotheses under investigation in this study are restated below. Following each hypothesis, the categorization of the relevant

independent variable(s) is explained briefly. Results relevant to the hypothesis for all four cases are then presented in tabular form and discussed.

Hypothesis 1. There is no difference in diagnoses made by clinicians of different religious affiliations. Clinicians' religious affiliation was dichotomized into LDS and Other. The distributions of diagnoses relevant to this hypothesis for all four cases and the related chi-square values are found in Table 5. For all four cases, the differences between cell frequencies are not significantly greater than that which would be expected by chance alone. Therefore, the null hypothesis is retained. The data provide no support for the notion that clinicians are biased by their own religious affiliations when diagnosing case reports.

Hypothesis 2. There is no difference in diagnoses made by clinicians whose fathers were of different religious affiliations. Clinicians' fathers' religious affiliation was divided into LDS and Other categories. The distributions of diagnoses pertinent to this hypothesis, along with chi-square values, are found in Table 6. For all four cases, chi-square values fail to reach significance at the .05 level. Thus, this hypothesis is retained. There is no evidence of psychodiagnostic bias due to clinicians' fathers' religious affiliation.

Hypothesis 3. There is no difference in diagnoses made by clinicians whose mothers were of different religious affiliations. Clinicians' mothers' religious affiliation was divided into two categories: LDS and Other. For all four cases, the distributions of diagnoses pertinent to this hypothesis and related chi-square values are presented in Table 7. Chi-square values fail to reach significance for any of the

Table 5
Distributions of Diagnoses and Chi-square Values
Relevant to Hypothesis No. 1

Case and Diagnostic Category	Clinicians' Religious Affiliation		χ^2
	LDS	Other	
Joyce			
Psychoses	21	11	.00
Other	18	10	
Michael			
Schizophrenia and Personality Disorders	24	11	.48
Neuroses	15	10	
David			
Personality Disorders and Unsocialized Aggressive Reaction	27	13	.33
Other	12	8	
Susan			
Alcoholism	14	4	1.81
Other	25	17	

Table 6
Distributions of Diagnoses and Chi-square Values
Relevant to Hypothesis No. 2

Case and Diagnostic Category	Clinicians' Fathers' Religious Affiliation		χ^2
	LDS	Other	
Joyce			
Psychoses	18	11	.00
Other	17	10	
Michael			
Schizophrenia and Personality Disorders	22	10	1.24
Neuroses	13	11	
David			
Personality Disorders and Unsocialized Aggressive Reaction	25	13	.55
Other	10	8	
Susan			
Alcoholism	13	4	2.03
Other	22	17	

Table 7
Distributions of Diagnoses and Chi-square Values
Relevant to Hypothesis No. 3

Case and Diagnostic Category	Clinicians' Mothers' Religious Affiliation		χ^2
	LDS	Other	
Joyce			
Psychoses	20	11	.00
Other	18	10	
Michael			
Schizophrenia and Personality Disorders	24	10	1.33
Neuroses	14	11	
David			
Personality Disorders and Unsocialized Aggressive Reaction	25	14	.00
Other	13	7	
Susan			
Alcoholism	13	4	1.51
Other	25	17	

cases. Therefore, this hypothesis is retained: There is no evidence of psychodiagnostic bias due to clinicians' mothers' religious affiliation.

Hypothesis 4. There is no difference in diagnoses of clients of different religious affiliations. Clients' religious affiliation was dichotomized into LDS and Other categories. The distributions of diagnoses in these categories for the four cases are found in Table 8. For the cases of Joyce, Michael, and Susan, chi-square values fail to reach significance. For the case of David, the differences in cell frequencies are significant, $\chi^2(1) = 4.05$, $p < .05$. When David was described as belonging to the LDS faith, he was diagnosed mildly. When he was described as being Roman Catholic, he was diagnosed more severely. However, this finding is viewed by the author as a chance occurrence. Hence, Hypothesis 4 is retained. Client religious affiliation does not seem to be a significant biasing factor affecting psychodiagnosis.

Hypothesis 5. There is no difference in diagnoses made by clinicians of different religious activity levels. Clinicians' activity level was split into Active and Inactive categories. Table 9 depicts the distributions of diagnoses and chi-square values relevant to Hypothesis 5 for the four cases. Differences in cell frequencies are insignificant for all four cases. This hypothesis is retained. Clinicians' religious activity levels do not appear to influence their diagnostic practices.

Hypothesis 6. There is no difference in diagnoses made by clinicians whose fathers were of different religious activity levels. Clinicians' fathers' activity level was separated into Active and Inactive groups. Distributions of diagnoses and chi-square values pertinent

Table 8
 Distribution of Diagnoses and Chi-square Values
 Relevant to Hypothesis No. 4

Case and Diagnostic Category	Clients' Religious Affiliation		χ^2
	LDS	Other	
Joyce			
Psychoses	16	16	.08
Other	15	13	
Michael			
Schizophrenia and Personality Disorders	18	17	.43
Neuroses	15	10	
David			
Personality Disorders and Unsocialized Aggressive Reaction	15	25	4.05*
Other	13	7	
Susan			
Alcoholism	9	9	.02
Other	20	22	

* $p < .05$.

Table 9
Distributions of Diagnoses and Chi-square Values
Relevant to Hypothesis No. 5

Case and Diagnostic Category	Clinicians' Religious Activity Level		χ^2
	Active	Inactive	
Joyce			
Psychoses	21	11	.90
Other	15	13	
Michael			
Schizophrenia and Personality Disorders	21	14	.00
Neuroses	15	10	
David			
Personality Disorders and Unsocialized Aggressive Reaction	24	16	.00
Other	12	8	
Susan			
Alcoholism	12	6	.48
Other	24	18	

to this hypothesis for the four cases are presented in Table 10. None of the chi-square values are significant. As a result, Hypothesis 6 is retained. There is no evidence to suggest that clinicians' fathers' religious activity levels influence psychodiagnosis.

Hypothesis 7. There is no difference in diagnoses made by clinicians whose mothers were of different religious activity levels. Clinicians' mothers' activity level was divided into Active and Inactive classes. The distributions of diagnoses relevant to this hypothesis for the four cases appear in Table 11. For the cases of Joyce, Michael, and David, chi-square values do not reach significance. The distribution of diagnoses pertinent to this hypothesis for the case of Susan is such that the chi-square test cannot be employed: expected cell frequencies do not meet the minimum requirements. However, visual inspection of the data reveals no significant differences between cell frequencies. Overall, Hypothesis 7 is retained. The data do not support the notion that clinicians' mothers' religious activity levels bias the diagnosis of case reports.

Hypothesis 8. There is no difference in diagnoses of clients of different religious activity levels. Clients' activity level was dichotomized into Active and Inactive classifications. The distributions of diagnoses and chi-square values related to Hypothesis 8 for the four cases may be found in Table 12. None of the chi-square values are significant. Thus, this null hypothesis is retained. Clients' religious activity level does not appear to be a biasing factor influencing psychodiagnosis.

Hypothesis 9. There is no interaction between clinicians' religious affiliation and clients' religious affiliation affecting diagnosis.

Table 10
Distributions of Diagnoses and Chi-square Values
Relevant to Hypothesis No. 6

Case and Diagnostic Category	Clinicians' Fathers' Religious Activity Level		χ^2
	Active	Inactive	
Joyce			
Psychoses	19	10	1.08
Other	14	13	
Michael			
Schizophrenia and Personality Disorders	22	10	2.97
Neuroses	11	13	
David			
Personality Disorders and Unsocialized Aggressive Reaction	24	14	.88
Other	9	9	
Susan			
Alcoholism	10	7	.00
Other	23	16	

Table 11
Distributions of Diagnoses and Chi-square Values
Relevant to Hypothesis No. 7

Case and Diagnostic Category	Clinicians' Mothers' Religious Activity Level		χ^2
	Active	Inactive	
Joyce			
Psychoses	24	7	.69
Other	19	9	
Michael			
Schizophrenia and Personality Disorders	25	9	.02
Neuroses	18	7	
David			
Personality Disorders and Unsocialized Aggressive Reaction	30	9	.96
Other	13	7	
Susan			
Alcoholism	12	5	.1
Other	31	11	

¹Untestable, due to small expected cell frequency.

Table 12
 Distributions of Diagnoses and Chi-square Values
 Relevant to Hypothesis No. 8

Case and Diagnostic Category	Clients' Religious Activity Level		χ^2
	Active	Inactive	
Joyce			
Psychoses	18	14	1.08
Other	12	16	
Michael			
Schizophrenia and Personality Disorders	20	15	1.02
Neuroses	11	14	
David			
Personality Disorders and Unsocialized Aggressive Reaction	17	23	.31
Other	10	10	
Susan			
Alcoholism	9	9	.02
Other	22	20	

Both clinicians' and clients' religious affiliation were split into LDS and Other groups. Combining these classifications to test for an interaction between them yielded four combinations of clinician and client religion: LDS clinician, LDS client; LDS clinician, Other client; Other clinician, LDS client; and Other clinician, Other client. The distributions of diagnoses across these categories for the four cases are found in Table 13. For the cases of Joyce and Michael, chi-square values were insignificant. For David and Susan, the last two categories of clinician and client religion had to be combined to permit valid chi-square analysis. When this was done, chi-square values were found to be nonsignificant. Therefore, Hypothesis 9 is retained. Clinicians' and clients' religious affiliation do not seem to interact in such a way as to bias diagnosis.

Hypothesis 10. There is no interaction between clinicians' fathers' religious affiliation and clients' religious affiliation affecting diagnosis. Both clinicians' fathers' and clients' religious affiliation were grouped into LDS and Other headings. Combining these two variables to investigate interactions between them yielded four combinations: LDS father, LDS client; LDS father, Other client; Other father, LDS client; Other father, Other client. These four classifications were employed to analyze the data on Joyce. For Michael, David, and Susan, the last two classifications were combined, in order to allow valid use of the chi-square test. Table 14 depicts the distributions of diagnoses pertinent to Hypothesis 10. It can be seen that none of the chi-square values reach significance. Therefore, this hypothesis is retained. There is no evidence to indicate

Table 13

Distributions of Diagnoses and Chi-square Values

Relevant to Hypothesis No. 9

Case and Diagnostic Category	Clinicians' and Clients' Religious Affiliations				χ^2	
	Clinician:	LDS	LDS	Other		Other
	Client:	LDS	Other	LDS		Other
Joyce						
Psychoses		11	10	5	6	.48
Other		9	9	6	4	
Michael						
Schizophrenia and Personality Disorders		13	11	5	6	1.07
Neuroses		8	7	7	3	
David						
Personality Disorders and Unsocialized Aggressive Reaction		10	17		13 ¹	3.14
Other		8	4		8 ¹	
Susan						
Alcoholism		7	7		4 ¹	1.87
Other		12	13		17 ¹	

¹The categories, "Other Clinician, LDS Client" and "Other Clinician, Other Client" were combined to permit valid chi-square analysis.

Table 14

Distributions of Diagnoses and Chi-square Values

Relevant to Hypothesis No. 10

Case and Diagnostic Category	Clinicians' Fathers' and Clients' Religious Affiliations					χ^2
	Father:	LDS	LDS	Other	Other	
	Client:	LDS	Other	LDS	Other	
Joyce						
Psychoses		11	8	5	6	.68
Other		9	9	6	4	
Michael						
Schizophrenia and Personality Disorders		12	11		10 ¹	1.24
Neuroses		8	6		11 ¹	
David						
Personality Disorders and Unsocialized Aggressive Reaction		10	16		13 ¹	1.19
Other		6	5		8 ¹	
Susan						
Alcoholism		6	7		4 ¹	1.73
Other		12	12		17 ¹	

¹The categories, "Other Father, LDS Client" and "Other Father, Other Client" were combined to permit valid chi-square analysis.

that clinicians' fathers' religious affiliation interacts with clients' religious affiliation to affect psychodiagnosis.

Hypothesis 11. There is no interaction between clinicians' mothers' religious affiliation and clients' religious affiliation affecting diagnosis. Clinicians' mothers' religious affiliation and clients' religious affiliation were divided into LDS and Other classes. When these variables were combined to test for interactions between them, four categories resulted: LDS mother, LDS client; LDS mother, Other client; Other mother, LDS client; and Other mother, Other client. These four categories were utilized in analyzing the data on Joyce. For Michael, David, and Susan, the last two categories were combined to allow for valid chi-square analysis. The distributions of diagnoses for the four cases, along with related chi-square values, are found in Table 15. For all four cases, differences between cell frequencies fail to reach statistical significance. Thus, Hypothesis 11 is retained. It is concluded that there is no interaction between clinicians' mothers' and clients' religious affiliation which affects psychodiagnosis.

Hypothesis 12. There is no interaction between clinicians' religious activity level and clients' religious activity level affecting diagnosis. Both clinicians' and clients' activity levels were split into Active and Inactive classifications. Combining the classifications of these two independent variables resulted in four combinations of clinicians' and clients' activity level: Active clinician, Active client; Active clinician, Inactive client; Inactive clinician, Active client; and Inactive clinician, Inactive client. For the cases of David and Susan, the last two combinations were joined together to permit valid chi-square testing. The distributions of diagnoses

Table 15

Distributions of Diagnoses and Chi-square Values

Relevant to Hypothesis No. 11

Case and Diagnostic Category	Clinicians' Mothers' and Clients' Religious Affiliations				χ^2	
	Mother:	LDS	LDS	Other		Other
	Client:	LDS	Other	LDS		Other
Joyce						
Psychoses		12	8	4	7	1.57
Other		9	9	6	4	
Michael						
Schizophrenia and Personality Disorders		13	11		10 ¹	1.69
Neuroses		9	5		11 ¹	
David						
Personality Disorders and Unsocialized Aggressive Reaction		9	16		14 ¹	1.14
Other		7	6		7 ¹	
Susan						
Alcoholism		5	8		4 ¹	1.85
Other		12	13		17 ¹	

¹The categories, "Other Mother, LDS Client" and "Other Mother, Other Client" were combined to permit valid chi-square analysis.

relevant to Hypothesis 12 for the four cases appear in Table 16. In no case does the resultant chi-square value achieve significance. Therefore, Hypothesis 12 is retained. The interaction between clinicians' and clients' religious activity levels does not appear to influence diagnosis.

Hypothesis 13. There is no interaction between clinicians' fathers' religious activity level and clients' religious activity level affecting diagnosis. The religious activity levels of both clinicians' fathers and clients were grouped into Active and Inactive classes. Combining these two levels of the two variables yielded four combinations of clinicians' fathers' and clients' activity levels: Active father, Active client; Active father, Inactive client; Inactive father, Active client; and Inactive father, Inactive client. For the cases of David and Susan, the last two combinations were united, to allow valid use of the chi-square test. The distributions of diagnoses across these categories for the four cases are presented in Table 17. For Joyce, the resultant chi-square value was significant, $\chi^2(3) = 8.76$, $p < .05$. When the clinician's father's and the client's religious activity levels were the same (either both active or both inactive), the clinician's diagnosis of the client tended to be severe (psychosis). On the other hand, when the clinician's father's and the client's religious activity levels differed (active father-inactive client or inactive father-active client), the clinician's diagnosis of Joyce tended to be less severe. However, this is viewed as a chance finding. For the cases of Michael, David, and Susan, chi-square values fail to reach significance. Overall, the results support the retention of Hypothesis

Table 16

Distributions of Diagnoses and Chi-square Values

Relevant to Hypothesis No. 12

Case and Diagnostic Category	Clinicians' and Clients' Religious Activity Levels				χ^2	
	Clinician: Client:	Active Active	Active Inactive	Inactive Active		Inactive Inactive
Joyce						
Psychoses		13	8	4	7	4.43
Other		5	10	7	6	
Michael						
Schizophrenia and Personality Disorders		11	10	9	5	1.34
Neuroses		5	10	6	4	
David						
Personality Disorders and Unsocialized Aggressive Reaction		13	11	16 ¹		.50
Other		5	7	8 ¹		
Susan						
Alcoholism		7	5	6 ¹		.54
Other		13	11	18 ¹		

¹The categories, "Inactive Clinician, Active Client" and "Inactive Clinician, Inactive Client" were combined to permit valid chi-square analysis.

Table 17
Distributions of Diagnoses and Chi-square Values
Relevant to Hypothesis No. 13

Case and Diagnostic Category	Clinicians' Fathers' and Clients' Religious Activity Levels				χ^2
	Father: Client:	Active Active	Active Inactive	Inactive Active	
Joyce					
Psychoses		14	5	4	7
Other		4	10	8	5
					8.76*
Michael					
Schizophrenia and Personality Disorders		12	10	8	3
Neuroses		5	6	5	8
					5.56
David					
Personality Disorders and Unsocialized Aggressive Reaction		12	12		15 ¹
Other		4	5		9 ¹
					.75
Susan					
Alcoholism		5	5		8 ¹
Other		10	13		16 ¹
					.15

¹The categories, "Inactive Father, Active Client" and "Inactive Father, Inactive Client" were combined to permit valid chi-square analysis.

* $p < .05$.

13. Clinicians' fathers' and clients' religious activity levels do not seem to interact in such a way as to affect diagnosis.

Hypothesis 14. There is no interaction between clinicians' mothers' religious activity level and clients' religious activity level affecting diagnosis. Clinicians' mothers' activity level and clients' activity level were both split into Active and Inactive groups. Ideally, combining these two levels of the two independent variables would yield four combinations: Active mother, Active client; Active mother, Inactive client; Inactive mother, Active client; and Inactive mother, Inactive client. However, due to small expected cell frequencies, the last two combinations had to be united in all four cases. Thus, three combinations of levels of the interacting variables were used: Active mother, Active client; Active mother, Inactive client; and Inactive mother, Active or Inactive client. The distributions of diagnoses across these categories for the four cases appear in Table 18. Chi-square values are nonsignificant for all four cases. As a result, Hypothesis 14 is retained. The results suggest that there is no interaction between clinicians' mothers' religious activity level and clients' religious activity level affecting diagnosis.

Summary of hypothesis testing. Taken as a whole, the findings presented above indicate that psychologists in Utah are not biased by their, their mothers', their fathers', or their clients' religious affiliations and activity levels when formally diagnosing case reports. A total of 56 data analyses were performed. Only two of these yielded significant relationships between religious variables and diagnosis. When 56 data analyses are performed with alpha set at .05, one would expect 2.8 "significant" findings to occur purely by chance. Thus,

Table 18

Distributions of Diagnoses and Chi-square Values

Relevant to Hypothesis No. 14

Case and Diagnostic Category	Clinicians' Mothers' and Clients' Religious Activity Levels			χ^2
	Mother: Client:	Active Active	Active Inactive	
Joyce				
Psychoses		15	10	7
Other		7	12	9
				3.08
Michael				
Schizophrenia and Personality Disorders		14	12	9
Neuroses		8	10	7
				.42
David				
Personality Disorders and Unsocialized Aggressive Reaction		16	15	9
Other		5	8	7
				1.66
Susan				
Alcoholism		6	7	5
Other		17	14	11
				.29

the two significant findings are viewed as chance occurrences: they do not indicate the presence of religious bias.

Analysis According to Diagnosis

In order to statistically test the 14 hypotheses in this study, a broad range of diagnostic labels had to be condensed into two general diagnostic categories for each case. It is likely that considerable sensitivity was lost as a result of this procedure. In addition, the analysis of some of the interaction hypotheses required that categories of clinician and client religious statuses be combined. Additional sensitivity was lost in this process. Thus, it is possible that potential significant findings may have been masked by the rather gross ways in which religious and diagnostic categories were combined.

In an attempt to recover some of the lost sensitivity, and to determine whether or not significant findings were masked, another form of data analysis was undertaken. Hypothesis 9 ("There is no interaction between clinicians' religious affiliation and clients' religious affiliation affecting diagnosis") was arbitrarily selected as a representative hypothesis to analyze. As will be seen shortly, this hypothesis also encompasses the data relevant to hypotheses 1 and 4.

First, the broad range of specific diagnostic labels which were obtained for all four cases combined (found in Table 4) were grouped into eight major diagnostic categories: Schizophrenia, Affective Psychoses, Neuroses, Personality Disorders, Alcohol-Related Disorders, Transient Situational Disturbances, Behavior Disorders of Childhood and Adolescence, and Conditions Without Manifest Psychiatric Disorder and Non-specific Conditions. While these categories are more general than

specific diagnostic labels, they are considerably more specific and more sensitive than the bipolar categorizations used to test the 14 hypotheses. Separate frequency count tables were constructed for each of these eight categories. These tables appear in Tables 19 through 26. One dimension of these tables represents clinicians' religious affiliations (dichotomized into LDS and Other); the other dimension represents clients' religious affiliations (dichotomized into LDS and Other). For the table representing any one of the eight diagnostic categories, a particular cell frequency represents the number of times that a diagnosis in that category was made of a client of a particular religious affiliation by a clinician of a particular religious affiliation, across all four cases. For example, Table 19 represents the distribution of diagnoses of Schizophrenia. The number "7" appearing in the upper left cell means that some form of schizophrenia was diagnosed seven times when LDS clinicians were diagnosing LDS clients. This figure encompasses all four cases. Because expected cell frequencies in some of Tables 19 through 26 are small, formal chi-square analyses were not performed. Rather, the tables were inspected visually.

Visual inspection of Tables 19 through 26 indicates that the distributions of diagnoses according to clinicians' and clients' religious affiliations do not differ markedly from that which would be expected by chance. This is additional evidence in support of retaining the null hypothesis that clinicians' and clients' religious affiliations do not interact in such a way as to bias psychodiagnosis.

Examining the column totals while ignoring the rows of Tables 19 through 26 provides data relevant to Hypothesis 1 ("There is no difference in diagnoses made by clinicians of different religious affiliations").

Table 19
 Distribution of Diagnoses of Schizophrenia¹ According to
 Clinicians' and Clients' Religious Affiliations

Clients' Religious Affiliation	Clinicians' Religious Affiliation		Row Total
	LDS	Other	
LDS	7	2	9
Other	4	2	6
Column Total	11	4	

¹Includes 295.0 (Schizophrenia, simple type), 295.2 (Schizophrenia, catatonic type), 295.24 (Schizophrenia, catatonic type, withdrawn), 295.3 (Schizophrenia, paranoid type), 295.4 (Acute schizophrenic episode), 295.5 (Schizophrenia, latent type), and 295.74 (Schizophrenia, schizo-affective type, depressed).

Table 20
 Distribution of Diagnoses of Affective Psychoses¹ According to
 Clinicians' and Clients' Religious Affiliations

Clients' Religious Affiliation	Clinicians' Religious Affiliation		Row Total
	LDS	Other	
LDS	6	5	11
Other	7	9	16
Column Total	13	14	

¹Includes 296.0 (Involutional Melancholia), 296.2 (Manic-depressive illness, depressed type), and 298.0 (Psychotic depressive reaction).

Table 21
 Distribution of Diagnoses of Neuroses¹ According to
 Clinicians' and Clients' Religious Affiliations

Clients' Religious Affiliation	Clinicians' Religious Affiliation		Row Total
	LDS	Other	
LDS	26	18	44
Other	26	9	35
Column Total	52	27	

¹Includes 300.0 (Anxiety neurosis), 300.1 (Hysterical neurosis), 300.13 (Hysterical neurosis, conversion type), 300.14 (Hysterical neurosis, dissociative type), 300.3 (Obsessive compulsive neurosis), 300.4 (Depressive neurosis), and 300.5 (Neurasthenic neurosis).

Table 22
 Distribution of Diagnoses of Personality Disorders¹ According to
 Clinicians' and Clients' Religious Affiliations

Clients' Religious Affiliation	Clinicians' Religious Affiliation		Row Total
	LDS	Other	
LDS	17	8	25
Other	17	10	27
Column Total	34	18	

¹Includes 301.0 (Paranoid personality), 301.2 (Schizoid personality), 301.3 (Explosive personality), 301.4 (Obsessive compulsive personality), 301.7 (Antisocial personality), 301.81 (Passive-aggressive personality), 301.82 (Inadequate personality), and 301.89 (Other personality disorders of specified types).

Table 23

Distribution of Diagnoses of Alcohol-Related Disorders¹ According to
Clinicians' and Clients' Religious Affiliations

Clients' Religious Affiliation	Clinicians' Religious Affiliation		Row Total
	LDS	Other	
LDS	7	2	9
Other	7	2	9
Column Total	14	4	

¹Includes 303.1 (Habitual excessive drinking), 303.2 (Alcohol addiction), and 309.13 (Non-psychotic OBS with alcohol (simple drunkenness)).

Table 24

Distribution of Diagnoses of Transient Situational Disturbances¹ Accord-
ing to Clinicians' and Clients' Religious Affiliations

Clients' Religious Affiliation	Clinicians' Religious Affiliation		Row Total
	LDS	Other	
LDS	4	1	5
Other	1	1	2
Column Total	5	2	

¹Includes 307 (Transient situational disturbances), 307.2 (Adjustment reaction of adolescence), and 307.3 (Adjustment reaction of adult life).

Table 25

Distribution of Diagnoses of Behavior Disorders of Childhood and
and Adolescence¹ According to Clinicians' and
Clients' Religious Affiliations

Clients' Religious Affiliation	Clinicians' Religious Affiliation		Row Total
	LDS	Other	
LDS	12	6	18
Other	15	8	23
Column Total	27	14	

¹Includes 308.4 (Unsocialized aggressive reaction of adolescence), 308.5 (Group delinquent reaction of adolescence), and 308.9 (Other reaction of adolescence).

Table 26

Distribution of Diagnoses of Conditions Without Manifest Psychiatric
Disorder and Non-Specific Conditions¹ According to
Clinicians' and Clients' Religious Affiliation

Clients' Religious Affiliation	Clinicians' Religious Affiliation		Row Total
	LDS	Other	
LDS	1	0	1
Other	0	0	0
Column Total	1	0	

¹The only diagnosis made in this category was 316.3 (Dyssocial behavior).

Recall that 65% of clinicians in the sample were LDS, while 35% of them belonged to other faiths or to no faith. Thus, it would be expected that in each of the tables numbered 19 through 26, the "LDS" column total would be approximately double the "Other" column total, if no diagnostic bias according to clinicians' religious affiliation exists. This is in fact the case. This provides additional justification for retaining Hypothesis 1.

Inspection of the row totals of Tables 19 through 26 while ignoring column totals also reveals no gross deviations from what would be expected by chance. This finding provides added justification for retaining Hypothesis 4 ("There is no difference in diagnoses of clients of different religious affiliations").

In summary, despite the additional sensitivity gained by considering diagnosis in somewhat more finely subdivided, more homogeneous categories, no evidence of religious bias in the formal diagnosis of case reports is found.

Summary of Results

Although the four case reports used in this study were designed to be somewhat ambiguous, they elicited a strikingly wide range of diagnostic labels. The case reports on Joyce, Michael, David, and Susan evoked 18, 9, 10, and 10 different diagnoses, respectively. Overall, the four case reports elicited 35 separate diagnostic labels. Thus, it was believed that the ambiguity of the cases was sufficient to allow clinicians in the sample to exercise their subjective judgments, which in turn implies that there was room for religious bias in diagnosis to operate, if any such bias exists.

Fourteen hypotheses relating clinician and/or client religious variables to diagnosis were tested on data from each of the four cases. Of these 56 data analyses, which utilized the chi-square test with alpha set at .05, two indicated statistically significant relationships between clinician and/or client religious variables and diagnosis. These were viewed as chance findings. Some sensitivity was lost in these analyses due to the necessity of combining diagnostic labels and religious statuses into rather gross categories.

In order to determine whether this loss of sensitivity may have masked a true religious bias in psychodiagnosis, the distribution of diagnoses across categories of clinician and client religious affiliation was visually inspected for each of eight diagnostic categories, across all four cases. This analysis confirmed the absence of religious bias.

Overall, it was concluded that psychologists in Utah were not biased by their, their mothers', their fathers' or their clients' religious affiliations or activity levels, or by interactions between their religious stances or backgrounds and their clients' religious stances, when formally diagnosing fictitious case reports.

DISCUSSION AND IMPLICATIONS

This section will begin with a discussion of various methodological points relevant to the finding that psychologists were not biased by religion in their diagnoses of fictitious cases. Following this, the "Implications" section will cover various interpretations of and speculations about the findings.

Discussion

The lack of religious bias in the findings of this study is particularly notable in light of the fact that the psychologists in the sample were given ample opportunity to express any religious biases which they had. The ambiguity of the case reports is evidenced in the fact that the cases elicited 18, 9, 10, and 10 different diagnoses, respectively. This degree of ambiguity in the data available to the subjects left considerable opportunity for them to exercise their subjective judgments in arriving at diagnoses. Yet these subjective judgments were uncolored by religious bias. In addition, two of the reports depicted clients whose symptomatology violated LDS church standards: Susan had a drinking problem, and David was a rebellious adolescent who was in trouble with the law. Yet the psychologists in the sample were apparently able to set aside their religious standards while diagnosing the cases. These considerations add strength to the conclusion that psychologists in Utah are not religiously biased in their formal diagnostic practices.

A number of qualifications must be made which limit the validity and generality of the findings of this study. First, as is the case

with most questionnaire studies, the sample of subjects in the study was not a random sample of the relevant population. The psychologists who comprised the sample were those who volunteered to participate in the study and who followed through with their initial commitments to participate. As was mentioned earlier, it is likely that the participants differed from nonparticipants in that the participants were all involved in clinical or counseling practice on at least a part-time basis, while some nonparticipants were employed in nonclinical areas. However, because the participants were volunteers, they may have differed in some other unknown ways from the nonparticipants.

Second, the size of the sample and the range of diagnoses obtained necessitated that data frequency count tables be collapsed, to permit valid chi-square analysis. It is likely that some sensitivity was lost in this procedure. Recall from the literature review that ex post facto studies relating religion to diagnosis found significant relationships between these two variables when diagnosis was considered in either breadth or depth (Roberts & Myers, 1968, pp. 139-147; Weintraub & Aronson, 1974), but not when diagnosis was framed in terms of only a few general categories (Eichler & Lirtzman, 1956; Jennings, 1972). The results of the section of the data analysis in this study in which the 14 null hypotheses were tested and retained may be considered as experimental evidence to support the ex post facto findings that religion does not influence the assignment of clients to a few general diagnostic categories.

In the present study, the results were also analyzed with diagnosis considered in greater breadth (8 general categories of diagnosis). No evidence of a religious bias on diagnosis was found. This finding is

seemingly in contradiction with the results of Roberts and Myers' ex post facto study (1968, pp. 139-147). Roberts and Myers, who considered diagnosis in considerable breadth, found religious differences in the incidences of total mental illness, neuroses, and alcohol and drug addiction. A number of explanations may account for this discrepancy. First, the results of Roberts and Myers' study may have reflected true differences in the incidences of various disorders between religious sects. Second, Roberts and Myers' study was conducted in the New Haven, Connecticut area; the present study was conducted in Utah. These two geographic areas differ with regard to religious composition and attitudes. Perhaps there is religious bias in psychodiagnosis in some geographic areas, and not in others. Third, perhaps the task presented to clinicians in this study was too artificial and impersonal to elicit religious bias. Research is needed to clarify this issue.

The results of this study cannot be generalized to the influence of religion on fine diagnostic differentiations. In order to provide evidence on this issue, a study similar to this one, but employing a much larger sample of psychologists, could be conducted. A large sample would allow valid chi-square analyses without having to combine diagnostic categories. Such a study would probably have to be nationwide, and would be quite costly.

Psychologists who participated in this study, as well as their mothers and fathers, fell overwhelmingly into "Active LDS" and "Inactive Other" religious categories: there were very few "Inactive LDS" and "Active Other" subjects. This phenomenon, along with the sample size, necessitated that religious affiliation and religious

activity level be analyzed separately in terms of their effects on diagnosis: otherwise, valid chi-square analysis would not have been possible. Thus, interactions between religious affiliation and activity could not be examined in terms of their effects upon diagnosis. In addition, because affiliation and activity level were so highly correlated, analyses of the effects of each of these variables were confounded by the contributions of the other variable.

It should be emphasized that this was a clinical analogue experiment. Application of the results to actual clinical practice rests on the assumption that the experimental task was an acceptable analogue of an actual clinical procedure.

Finally, two cautions must be made regarding the generality of the findings. First, the population from which the sample for this study was drawn consisted of psychologists licensed to practice in Utah. The religious composition of Utah's population is unique in the United States. Thus, the results of the study cannot be generalized to other religious groups in other geographic areas. Second, the task presented to subjects in the study was an experimental analogue of the clinical task of integrating case history, behavioral, and psychological test interpretation data to arrive at formal diagnostic labels. It cannot be assumed without further research that the results of the study also apply to other aspects of clinical diagnostic practice, such as interpreting test protocols, arriving at interview impressions, planning treatment, or rating prognosis.

Implications

The finding that the psychologists who were subjects in this study did not exhibit measurable religious bias in diagnosing fictitious case

reports is open to a number of interpretations and speculations. As was mentioned in the previous section, both the ambiguity and the content of the case reports which were constructed for the study provided ample room for religious bias to operate, if any such bias existed. Also, although the reader has been cautioned not to generalize the results to settings outside of Utah, this research project was undertaken with the speculation that if religious bias in psychodiagnosis operated anywhere in the United States, such a bias would probably be strongest in Utah, where the life styles of members of the mainstream culture are dominated by a strong religious group. In spite of these considerations, no bias was found.

Perhaps the professional training of the psychologists in the sample allowed them to set religious value considerations aside while reading the case reports, such that they were able to respond objectively to the symptomatology of the "patients." If this is true, and if it also applies to the psychologists' clinical practices, then the results attest to the adequacy of the training which the psychologists have received.

Not only was psychodiagnosis unaffected by psychologists' current religious stances, it was also unaffected by the psychologists' "affective legacies" from their religious upbringings, as measured by their parents' religious stances, which was referred to by Marx and Spray (1972). Marx and Spray found that this religious "affective legacy" was a major variable accounting for the mutual selection process between psychotherapists and their patients. This type of selection process was viewed as beneficial to an effective therapeutic relationship. Perhaps this principle does not apply to psychodiagnosis because the doctor-patient relationship in diagnostic work is not as

personal, prolonged, or crucial as is the case in therapy. In other words, psychologists may be more tolerant of patients who differ from them when doing diagnostic work than when doing psychotherapy, because diagnostic work requires less personal involvement than does therapy.

It is also possible that the task presented to the psychologists in this study was simply too dry, depersonalized, and artificial to draw out religious bias. This was a clinical analogue experiment: the task was a laboratory representation of a real clinical situation. Although psychologists were not biased by religion when reading words on a piece of paper, it is possible that the presence of a "real live patient" would have a different effect.

Finally, the dependent variable in this study was formal diagnosis according to the typology of the American Psychiatric Association's DSM-II (1968). It may be that this measure is simply too gross and insensitive to be affected by subtle religious bias. Perhaps more sensitive measures of psychologists' impressions of patients would show the influence of religious bias.

The ideas presented in the preceding paragraphs are speculations, which could conceivably be supported or disconfirmed by future research. At the present time, the primary conclusion is that this study provided no evidence that the formal diagnoses made by psychologists in Utah are biased by religious factors.

A secondary finding in this study merits discussion. Although the case reports were intended to be somewhat ambiguous, so as to permit alternate diagnoses, the range of diagnoses obtained was striking. There was very little consensual agreement regarding the "correct" diagnoses of the four cases. Assuming that for each case, one or a

few diagnoses were correct, then these cases would have been misdiagnosed frequently, had they been real patients. Although this misdiagnosis would not discriminate against any religious group, it would have profound implications on the individual level. For example, Joyce received diagnoses of six types of schizophrenia, manic-depressive illness, psychotic depressive reaction, depressive neurosis, five other types of neuroses, two types of personality disorders, and transient situational disturbance. If Joyce were a real patient, schizophrenic diagnoses would most likely lead to hospitalization and anti-psychotic medication. If she were diagnosed as manic-depressive or psychotic depressive reaction, she would probably be hospitalized and be given anti-depressant medication and/or electroconvulsive therapy. A diagnosis of depressive neurosis might indicate anti-depressant drugs and psychotherapy. A diagnosis of anxiety neurosis might indicate anti-anxiety drugs coupled with psychotherapy. Other neurotic diagnoses and diagnoses of personality disorders would probably indicate intensive psychotherapy, and a diagnosis of transient situational disturbance might lead to environmental manipulation and supportive psychotherapy. For as many of these diagnoses as were incorrect, Joyce's treatment would be misdirected. So the lack of diagnostic agreement on the cases used in this study and the implications of this regarding treatment point to a need for a more precise and reliable system of diagnosis. Until diagnostic procedures are refined, patients are likely to suffer the effects of mistakenly directed treatment efforts.

SUMMARY AND CONCLUSIONS

Summary

Theorists have suggested that the diagnosis of mental illness is not a completely objective scientific procedure, but rather that psychodiagnosis is influenced by the sociocultural attitudes of the diagnostician. A review of the literature revealed a number of demographic and attitudinal variables related to sociocultural values which have been hypothesized to bias various aspects of psychodiagnosis. One such variable is religion. The results of ex post facto studies suggest that patient religion is related to diagnosis when diagnosis is considered either in breadth or in depth, but not when diagnosis is framed in terms of a few general categories. The design of these studies prohibits drawing conclusions about causal relationships. The influence of clinicians' religion on diagnosis has been addressed only once, and then inadequately. Interactions between clinician and patient religion which may affect diagnosis have not yet been studied.

The present study sought to utilize a clinical analogue design in order to shed additional light on the issue of whether religion is a biasing factor on psychodiagnosis. More specifically, the study investigated whether psychologists' formal diagnoses of fictitious case reports were influenced by psychologists', psychologists' mothers', psychologists' fathers', or clients' religious affiliations (LDS vs. Other) or religious activity levels (Active vs. Inactive), or by interactions between psychologist and client religious variables.

Questionnaires were mailed to 228 psychologists licensed to practice in Utah. The questionnaires invited the psychologists to be subjects in the study, and asked for an assortment of demographic and attitudinal information. Items concerning psychologists', their fathers', and their mothers' religious affiliations and activity levels were scattered throughout the questionnaire. The questionnaire was pretested to insure that the purpose of the study was adequately concealed. Those psychologists whose questionnaire responses indicated that they were willing to participate in the study were sent reports on four fictitious patients to read and diagnose. They were instructed to make their diagnoses according to the typology of the American Psychiatric Association's DSM-II (1968). The case reports were varied on the religious affiliations and activity levels of the fictitious clients. Usable data were obtained from 60 psychologists: these individuals comprised the sample for the study.

The cases elicited a wide variety of diagnostic labels. The data were arranged into two-dimensional frequency count tables. There were 56 tables: 14 hypotheses were tested on the data from each of the four case reports. The hypotheses were tested with the chi-square technique. Of the 56 separate data analyses, two reached statistical significance at the .05 level. These were viewed by the researcher as chance findings.

Collapsing frequency count tables probably caused a loss of sensitivity. To counteract this, another type of analysis was performed. The distributions of eight general classes of diagnoses across categories of clinician and client religious affiliation were visually analyzed. No evidence of a religious bias in diagnosis was found.

Conclusions

Based on the results of this study, the null hypotheses that clinician and client religious variables and interactions between the two do not influence the formal diagnosis of fictitious case reports were retained. The task required of subjects in the study was designed as an experimental analogue of the clinical task of arriving at a formal diagnostic label based on case history, behavioral, and psychological test interpretation data. Thus, it is concluded that psychologists in Utah are not biased by religion when performing this clinical task. The reader is cautioned that this conclusion cannot be generalized to other aspects of clinical practice or to other religious groups in other geographic areas.

It is important to note that because of the size of the sample in this study, and because of the large range of diagnoses which were obtained, specific diagnoses had to be grouped into general categories in order to permit valid chi-square analyses of the 14 hypotheses. The finding that the assignment of patients to general diagnostic categories is not biased by religion is consistent with the results of ex post facto studies which found no relationship between patient religion and general diagnosis (Eichler & Lirtzman, 1956; Jennings, 1972). The present study adds additional information to previous literature by demonstrating that in addition to patient religion not affecting general diagnosis, psychologist religion (both present religion and early religious influences) and interactions between psychologist and patient religion also do not influence general diagnosis.

However, previous ex post facto research did find relationships between patient religion and diagnosis when diagnosis was considered

in either greater breadth (Roberts & Myers, 1968, pp. 139-147) or greater specificity (Weintraub & Aronson, 1974). In contrast to the findings of Roberts and Myers, the present study found no evidence of religious bias on psychodiagnosis when diagnosis was considered in breadth. Because of the practical considerations mentioned in the previous paragraph, the present study was unable to experimentally confirm or disconfirm that religious bias on the part of diagnosticians contributed to the relationship found by Weintraub and Aronson, who dealt with fine diagnostic discriminations.

In summary, the results of this study suggest that psychologists licensed to practice in Utah are not biased in their formal diagnoses of patients by their present religious affiliations or activity levels, their early religious training (as measured by their fathers' and mothers' religious affiliations and activity levels), their clients' religious affiliations or activity levels, or interactions between the religious affiliations or activity levels of their clients and those of their own or their parents.

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APPENDICES

APPENDIX A



UTAH STATE UNIVERSITY · LOGAN, UTAH 84322

COLLEGE OF EDUCATION

DEPARTMENT OF
PSYCHOLOGY
UMC 28

June 30, 1977

Dear

The enclosed questionnaire is part of a research project investigating patterns of psychodiagnosis in the state of Utah in relation to certain demographic and attitudinal variables. In recent years, there has been considerable controversy in the professional literature regarding the practice of diagnostic labeling. The results of this study will help to determine the validity of this practice. I am particularly desirous of your responses to the questionnaire because, as a psychologist licensed to practice in Utah, your contributions will add significantly to an accurate picture of psychodiagnostic procedures in this state. I can assure you that your identity will be used solely for clerical purposes, and that the results of the study will be reported in group form, without reference to the names of the participants.

If you are willing to participate in this study, I request that you complete the enclosed questionnaire, which asks for standard demographic information and your attitudes on certain dimensions, and return it to me in the stamped, self-addressed envelope which is included by Monday, July 11, 1977. Approximately 2 weeks later, you will receive brief summaries of four fictitious cases. These summaries will include referral reason, observed mental and behavioral state at time of referral, brief case history, and psychological test results. You will be asked to make "blind" diagnoses of these cases, according to the nosological scheme of the American Psychiatric Association's DSM-II. It is estimated that this endeavor will occupy 2 hours of your time. If you wish to receive a copy of the final results of the study, you may indicate this on the questionnaire, and I will be pleased to accomodate you.

If you are not willing to participate, I ask you to so indicate on the first item of the questionnaire, and return the entire questionnaire to me in the envelope provided.

Thank you for your cooperation.

Sincerely yours,

Robert D. Wadsworth

Keith T. Checketts
Professor

Name: _____

Are you willing to devote approximately 2 hours of your time to participating in this study? Yes _____ No _____

If you checked "No", please return this questionnaire in the self-addressed, stamped envelope.

If you checked "Yes", please complete the questionnaire and return it in the self-addressed, stamped envelope. In a few weeks, you will receive by mail reports on four fictitious patients. You will be asked to diagnose these patients based on the information in the reports.

Upon completion of this research project, do you wish to receive a copy of the results? Yes _____ No _____

1. Sex (Check one:) Male _____ Female _____
2. What was your age on your last birthday? _____
3. What is your race? _____
4. What is your religious preference? _____
5. What is your marital status? _____
6. What is the highest academic degree which you hold? _____
7. From what college or university did you receive your highest academic degree? _____
8. What was the date on which you were granted your highest academic degree (month and year)? _____
9. During the time since you were granted your last academic degree, for how many years (to the nearest whole year) have you been actively involved in clinical or counseling work? _____
10. Are you presently involved in clinical or counseling work? (Check one:)
 Yes: full time
 Yes: part time
 No

11. By what type of facility are you presently employed? (Check one:)

- General Medical Hospital
 State Mental Hospital
 V.A. Hospital
 Private Mental Hospital
 Mental Health Clinic
 School or School System
 United States Government (including Armed Forces)
 Private Practice
 College or University
 Other (specify) _____

12. What is the population of the city or town in which you are presently employed? (Check one:)

- Rural, unincorporated
 incorporated, under 1,000
 1,000 to 2,500
 2,500 to 5,000
 5,000 to 10,000
 10,000 to 50,000
 50,000 to 250,000
 over 250,000

13. What counseling or psychotherapy style do you most often adhere to? (Check one:)

- Behavioral
 Gestalt
 Non-directive
 Orthodox Psychoanalysis
 Psychoanalytic or Neo-analytic Psychotherapy
 Rational-Emotive
 Reality Therapy
 Transactional Analysis
 Eclectic
 Other (specify) _____

14. Diagnostic labeling has recently been the topic of considerable controversy in the mental health professions. Adherents of this practice cite its advantages (facilitating disposition and treatment decisions, permitting epidemiological research, etc.), while critics of the practice cite its potential deleterious effects (the stigmatizing effects of psychiatric labels, establishing self-fulfilling prophecies, etc.). How useful do you think the practice of diagnostic labeling is? (Check one:)

- Its advantages far outweigh its disadvantages
 Its advantages slightly outweigh its disadvantages
 Its advantages and disadvantages are about equal
 Its disadvantages slightly outweigh its advantages
 Its disadvantages far outweigh its advantages

15. How would you describe your political attitudes? (Check one:)
- very liberal
 liberal
 middle-of-the-road
 conservative
 very conservative
16. How would you describe your present level of participation in the activities of your religion? (Check one:)
- Very active
 Fairly active
 Not very active
 Inactive
17. How would you describe your attitudes toward our culture's traditional sex-role for women? (Check one:)
- Very traditional (in sharp disagreement with the views of the modern feminist movement)
 Somewhat traditional
 Middle-of-the-road
 Somewhat liberal
 Very liberal (in agreement with the views of the modern feminist movement)

QUESTIONS 18 THROUGH 28 REFER TO THE PERIOD OF TIME WHEN YOU WERE UNDER THE AGE OF 18.

18. What was the highest level of education attained by your father? (Check one:)
- Graduate or professional degree
 College or university degree
 Attended college or university, but did not earn degree
 Graduated from high school
 Attended some high school, but did not graduate
 Junior high school (completed 7 through 9 years of school)
 Less than 7 years of school
19. In what occupation was your father involved for the greatest percentage of the time between your birth and when you reached age 18? _____
-
20. How would you describe your father's political attitudes? (Check one:)
- Very liberal
 Liberal
 Middle-of-the-road
 Conservative
 Very conservative
21. What was your father's religious preference? _____

22. How would you describe your father's level of participation in the activities of his religion? (Check one:)
- Very active
 Fairly active
 Not very active
 Inactive
23. How would you describe your father's attitudes toward our culture's traditional sex-role for women? (Check one:)
- Very traditional
 Somewhat traditional
 Middle-of-the-road
 Somewhat liberal
 Very liberal
24. How would you describe your mother's political attitudes? (Check one:)
- Very liberal
 Liberal
 Middle-of-the-road
 Conservative
 Very conservative
25. What was your mother's religious preference? _____
26. How would you describe your mother's level of participation in the activities of her religion? (Check one:)
- Very active
 Fairly active
 Not very active
 Inactive
27. How would you describe your mother's attitudes toward our culture's traditional sex-role for women? (Check one:)
- Very traditional
 Somewhat traditional
 Middle-of-the-road
 Somewhat liberal
 Very liberal
28. Was your mother employed outside the home during the time when you were under the age of 18?
- Yes: full time
 Number of years _____
- Yes: part time
 Number of years _____
- No
-
-

Please be sure that you have responded to all of the items on this questionnaire, and return the questionnaire to the experimenter in the envelope provided. Thank you again for your cooperation.

APPENDIX B



DEPARTMENT OF
PSYCHOLOGY
UMC 28

July 27, 1977

Dear Dr.

We would like to take this opportunity to follow up our letter to you of June 30, 1977, and again ask for your assistance in our research project. Our study will investigate the relationship between certain demographic, attitudinal, and background variables, and psychodiagnostic procedures among psychologists licensed to practice in the state of Utah. Perhaps due to some error or oversight on our part, we have not received your response to our questionnaire. For your convenience, we have enclosed another copy of the questionnaire, along with a stamped, self-addressed return envelope, with this letter.

If you are willing to participate in this study, we request that you complete the enclosed questionnaire, which asks for standard demographic and background information and your attitudes on certain dimensions, and mail it to us by Friday, August 5, 1977. Shortly afterwards, you will receive brief summaries of four fictitious cases, which will include referral reason, background information, behavior observations, and psychological test results. You will be asked to diagnose these cases according to the nosological scheme of the American Psychiatric Association's DSM-II. In our original letter to you, we estimated that this activity would occupy 2 hours of your time. However, upon constructing and pretesting the materials, we have found that reading and diagnosing them will not require more than 1/2 hour. We will be pleased to provide you with a copy of the final results of the study, if you so indicate on the questionnaire.

If you prefer not to participate, we ask you to indicate this on the first item of the questionnaire, and return the blank questionnaire to us in the envelope provided. We realize that as a professional psychologist, your time is very valuable. However, we need to obtain an accurate count of the number of participants in our study before initiating the second phase of the project. For this reason, we ask that you take a moment to indicate whether or not you are willing to participate.

Thank you for your cooperation.

Sincerely yours,

Robert D. Wadsworth

Keith T. Checketts
Professor

APPENDIX C



DEPARTMENT OF
PSYCHOLOGY
UMC 28

August 30, 1977

Dear

Thank you for indicating your willingness to participate in our research project, and for completing and returning our questionnaire. Your cooperation and assistance are greatly appreciated.

Enclosed you will find reports on four fictitious patients or clients. Each report includes identifying data, tests administered, referral reason, background information, behavior observations, test results, and summary. At this time, we ask you to read each of the reports, and diagnose each "patient" based on the classification system of the American Psychiatric Association's DSM-II. As is often the case in clinical practice, you may find that some of these reports suggest more than one diagnosis. However, for the purposes of this study, it is extremely important that you indicate one and only one diagnosis for each "patient". Please record only the one primary or most likely diagnosis, based on the information available.

We realize that professional psychologists are not accustomed to making "blind" diagnoses in their ordinary practice. However, we believe that, for the purposes of this study, this approach represents the greatest possible similarity to clinical diagnostic practice without requiring an excessive amount of your valuable time.

Immediately behind this letter, you will find a form ("Diagnoses") on which you may indicate your diagnosis of each case. After reading each report, please indicate your diagnosis of that case on the form. Each "patient" is identified by his or her first name and last initial on both the case report and the form. These identifying names are to be used to ensure that you enter your diagnosis of each case in the appropriate place on the form.

After reading all four reports and writing your diagnosis of each on the form provided, please return only that form in the self-addressed, stamped envelope (postage on the envelope is insufficient for mailing back all of the case reports), by September 12, 1977.

Thank you again for your time and assistance.

Sincerely,

Robert D. Wadsworth

Keith T. Checketts

Professor

DIAGNOSES

Name: _____

Code: _____

After reading each of the four case reports, please enter your diagnosis of that case in the appropriate space on this form. Each time, be sure that the name on the case which you are diagnosing corresponds to the name next to the space on this form where you are entering your diagnosis. Please assign one and only one diagnosis to each case: the primary or most likely diagnosis. After diagnosing all four cases, return this completed form in the envelope provided.

CASE YOUR DIAGNOSIS (Enter one and only one diagnosis for each case in this column)

"Joyce J." _____

"Michael M." _____

"David D." _____

"Susan S." _____

Client: Joyce J.
Age: 24
Marital Status: Separated
Occupation: None

Tests Administered: Wechsler Adult Intelligence Scale
Bender Motor Gestalt Test
Minnesota Multiphasic Personality Inventory
Rorschach Inkblot Test
Human Figure Drawings
Rotter Incomplete Sentences Blank--Adult Form

Referral Reason:

Joyce J. is a 24 year old white female who was referred to a private mental hospital by her mother, Mrs. J., who described Joyce's condition as "nervous exhaustion." Mrs. J. related that 8 months ago when Joyce's husband left her, Joyce returned home to live. Since that time, Joyce has been "depressed and listless." Mrs. J. hoped to be able to "talk Joyce out of this depression." Joyce's condition continued to deteriorate, leading Mrs. J. to bring her to the hospital. After Joyce was in the hospital for 2 weeks, Mrs. J. visited her and brought her news that her husband was suing for divorce. At that time, Joyce entered a stuporous state.

Background Information:

The following information was provided by Joyce at the time of her admission to the hospital.

Joyce was her parents' only child. She was raised in the Mormon (Presbyterian) faith, and remains active in this religion. (She was raised in the Mormon (Presbyterian) faith but has not been religiously active since high school.) Joyce labeled her parents as "pretty liberal," and added that she has incorporated some of this value system. Her father, a salesman, died suddenly when Joyce was 7 years old. She recalled that both before and after her father's death, her mother referred to her father as a "worthless bum." Joyce's mother, whom she described as over-protective and demanding, went to work as an executive secretary when Mr. J. died. Joyce stated that ever since her father died, her mother has brought numerous "boyfriends" home, and that this made her feel "unwanted and in the way." On such occasions, she recalls being told to "get lost" or "blend in with the furniture."

Joyce recalled that although she was well-liked and socially active in school, she always felt shy. After graduating from high school, she worked as a secretary for approximately one year, and then married her "high school sweetheart." Since that time, she has become increasingly disenchanted with her marriage. She reported that her husband, who is assistant manager of a franchised restaurant, spent most of his time "out with the guys," leaving her at home with nothing to do except watch television. Joyce stated that her husband only paid attention to her when he wanted sex. She stated, "there must be more to marriage than just sex." During the last 2 years of her marriage, she refused to have

intercourse with her husband. She attributed her husband's leaving her to his being "oversexed" and unsatisfied by her.

When Joyce's husband left her, she moved back into her mother's home. She remarked, "you can't trust men: they only want one thing. At least I knew my mother would take care of me."

Behavior Observations:

Upon her admission to the hospital, Joyce appeared apathetic and depressed. During interviewing, she offered information freely, but spoke in a monotonous manner with a somewhat whining, immature quality. At times, she wept openly, but this behavior did not seem related to the content of her speech. She continuously swung one leg, which was crossed over the other, back and forth. Ward personnel often observed other patients "waiting on" Joyce.

During a visit from her mother, Joyce was informed of her husband's suit for divorce. At that time, she became stuporous. While in this state, she allowed herself to be led about the ward, but did not move spontaneously. Her speech involved only mumbled obscenities regarding men. Her facial expression seemed to be one of perplexity. Other patients repeatedly attempted to console her.

Test Results:

Testing was performed the day following Joyce's admission to the hospital, before she entered a stuporous state.

On the Wechsler Adult Intelligence Scale, Joyce received a full scale IQ of 105, which places her in the "normal" range of overall intellectual ability. Verbal IQ was 99; performance IQ 112. Joyce's subtest scatter suggests a high level of anxiety, slightly impaired concentration, conformity, and naivete.

Joyce's reproductions of the figures of the Bender Motor Gestalt Test provide no evidence of perceptual-motor impairment. When interpreted as a projective device, this test suggests that Joyce is experiencing considerable conflict in sexual areas. In addition, she seems to be very anxious and constricted, and somewhat narcissistic.

Joyce's Minnesota Multiphasic Personality Inventory profile suggests that she is having difficulty thinking and concentrating. Women with profiles similar to Joyce's are often anxious and lacking in drive. They frequently have marital and sexual difficulties, they are prone to whining and complaining about physical problems, and they tend to have insomnia. They are described as apathetic, immature, and dependent, and may have a "little girl" quality about them. They may exhibit delusional thinking.

The Rorschach Inkblot Test suggests that although Joyce is outwardly over-conforming and conventional, she has strong oppositional trends. This opposition is directed inward, as a defense against excessive anxiety and emotional impulses. She is emotionally labile, but opposes

her emotionality in stressful situations by retreating into regressive fantasy activity. Her interests are somewhat childish, and she is in conflict regarding male figures. She appears to be quite dependent. She is quite constricted, resulting in difficulty responding appropriately to the environment.

Joyce's human figure drawings indicate low self-esteem, self-centeredness, dependency, naivete, and sexual preoccupation and conflict. There is evidence of a strong desire for approval, coupled with a tendency toward withdrawal.

The principal themes in Joyce's responses to the Rotter Incomplete Sentences Blank--Adult Form are distrust of males, aversion to sex, and ambivalence toward her mother. Joyce's responses to this test had a somewhat shallow quality.

Summary:

Joyce was referred to a private mental hospital by her mother for depression and lack of activity of 8 months duration, precipitated by her husband leaving her. Shortly after entering the hospital, Joyce entered a stuporous state. Testing, which was performed prior to the onset of the stupor, indicates that Joyce is of average intellectual ability. Test results suggest that Joyce is conforming, anxious, immature, dependent, and constricted. She seems to be ambivalent toward her mother, in conflict over heterosexual relationships, and having difficulty thinking and concentrating.

(At this time, please enter the primary or most likely diagnosis of Joyce J. on the form provided.)

Client: Michael M.
Age: 21
Marital Status: Single
Occupation: Student

Tests Administered: Wechsler Adult Intelligence Scale
Bender Motor Gestalt Test
Minnesota Multiphasic Personality Inventory
Rorschach Inkblot Test
Human Figure Drawings
Rotter Incomplete Sentences Blank--Adult Form

Referral Reason:

Michael M. is a 21 year old white male who presented himself at an outpatient clinic complaining of being depressed about his difficulties in interpersonal relationships. During his initial interview, he stated that he has no close friends of either sex, and that every time he gets a "crush" on a girl, the feeling is not reciprocated, and he is inevitably hurt and disappointed.

Mr. M. also complained about feeling "nervous" most of the time. He described a history of "nervous habits," the most recent of which involves repetitive swallowing. Habits which he has had in the past include eye blinking, cracking his neck, and repeating meaningless phrases to himself.

Background Information:

Mr. M. provided the following background information during his initial visit to the clinic.

Mr. M. was the third in a family of four children. He was born in a rural area in Idaho, where he lived until age 11. At that time, he and his family moved to Ogden, Utah, where he remained until leaving home to attend college at Utah State University, Logan, Utah, at age 17.

Mr. M. described his parents as strict, conservative, and old-fashioned. He stated that his parents did not believe in engaging in social or recreational activities, and that as a result, he never acquired adequate social skills. He related that he has always felt inadequate and inferior in interpersonal situations with either sex. Mr. M. added that as a child and adolescent, he was of smaller physical stature than his peers, and was thus afraid to engage in athletics or "rough-housing." He spent most of his free time at home, keeping a diary, writing poetry, reading, building models, and daydreaming. Mr. M. stated that he has always been "stubborn" toward authority, and has never been able to accept advice without becoming resentful. He reported that he has always daydreamed about "getting even with the world" for all the injustices he has suffered.

Mr. M.'s father was described as having quit school at age 16 to work on a farm. He remained in farming until moving to Ogden, at which time he began work as a mechanic, repairing farm equipment. Mr. M.

described his father as having a lot of "common sense," but never reaching his potential. Mr. M.'s mother came from an upper middle-class family, and married "beneath her station." Mr. M. recalled that his mother has always been resentful toward her lowered social position, and that she has always been cold and aloof in dealing with her husband's family. Mr. M. stated that he was the least favored by his parents of the four children in the family, and that he was often ridiculed and "picked on" by his older siblings.

Mr. M.'s parents were strict adherents of the LDS (Methodist) faith, and required that the children attend church regularly. Mr. M. remains active in his religion, and reads from the Bible regularly. (Since leaving home to attend college, Mr. M. has stopped participating actively in his religion.) Mr. M. lives by a strict, conservative, well-defined moral code, and states that if everyone adhered to this code, "the world would be a better place."

Mr. M. reported that he always achieved well academically, because this was the only area in which he could excel. He stated, "I had to get straight A's to prove that I had something going for myself. Mr. M. is presently a senior in college, with a double major in Philosophy and English. He continues to write poetry extensively in his spare time. He has been employed during summer vacations as a bank teller and as a library aide.

At the present time, Mr. M. resides in a university dormitory. He described his roommate as being "a phony socialite," and stated that rather than associate with his roommate, he prefers to stay in his room and study. He reported that when he does engage in social activities, he feels as if he is "tagging along." He related that he needs to "keep busy studying and writing poetry," so he doesn't have to think about how depressed he is.

Mr. M. reported that he was afflicted with frequent colds, viruses, and other minor ailments as a child. He added that he is currently in good physical health.

Behavior Observations:

Mr. M. is a short, neatly dressed young man of slight build, with somewhat effeminate mannerisms. His speech is precise and pedantic. His posture and movements during evaluation were suggestive of a high level of anxiety, yet he expressed little affect during interviewing.

During administration of the WAIS, Mr. M. consistently offered more detail and elaboration than the tasks required. On several occasions, he attempted to engage the examiner in intellectual discussions related to test items. When the first personality test was introduced, Mr. M. seemed reluctant to proceed with testing, stating "I don't see why this is necessary." He added, "I guess this will tell you all about my subconscious."

Test Results:

On the Wechsler Adult Intelligence Scale, Mr. M. received a full scale IQ of 132, which places him in the "superior" range of overall intellectual ability. Verbal IQ was 136; Performance IQ 123. Mr. M.'s pattern of subtest scores suggests anxiety and depression, obsessive attention to detail, and a disregard for or rejection of social conventions. Mr. M.'s unusually long time assembling the hand of the Object Assembly subtest may indicate concern over aggression and/or masturbation.

Mr. M.'s reproductions of the figures of the Bender Motor Gestalt Test show no evidence of perceptual-motor impairment. Mr. M. devoted meticulous attention to the minute details of some of the designs. When interpreted as a projective device, this instrument suggests that Mr. M. experiences difficulty handling aggressive impulses in an appropriate manner, and that Mr. M. may have some conflict regarding his sexual identity.

Mr. M.'s Minnesota Multiphasic Personality Inventory profile suggests that he is chronically depressed, shy, quiet, withdrawn, and anxious. He possesses much self-doubt, and feels inadequate in most areas of his life. Individuals with MMPI profiles similar to Mr. M.'s often have a childhood history of being teased, and they may feel like the inferior members of their families. Although they appear to have mood swings, in reality they have been steadily slowing down, with occasional bursts of energy. They sometimes exhibit confused thinking and flat affect.

On the Rorschach Inkblot Test, Mr. M.'s responses suggest a marginal impairment in reality testing. Although his attention is adequately organized, he tends to devote undue attention to small details. He displays a strong desire to respond in situations which arouse feelings, yet he is unable to express his feelings. Instead, he withdraws into idiosyncratic fantasies. He seems prone to excessive introspection, and he feels himself to be inferior.

Mr. M.'s human figure drawings suggest a sense of physical inferiority and social inadequacy. His drawings seem to indicate disturbed interpersonal relationships and social withdrawal. It is speculated that this withdrawal is partly due to fear of retaliation for expressing aggression, and partly due to confused sexual identity and sexual immaturity.

The primary theme apparent in Mr. M.'s responses to the Rotter Incomplete Sentences Blank is a pervasive sense of social incompetence and isolation. Mr. M. seems to feel resentful toward and isolated from people of both sexes. He describes a general feeling of depression, but expresses this feeling in a rather shallow manner.

Summary:

Michael M. is a 21 year old white male college senior who came to an outpatient clinic complaining of depression, anxiety, social inhibition, and "nervous habits." Psychological evaluation revealed Mr. M. to be of superior intellectual capacity, and to be without organic impairment. Mr. M. tends to intellectualize, and is overly attentive to minute details. Testing confirmed his presenting complaints of depression, anxiety, sense of inferiority, and social withdrawal. There is some suggestion of slightly impaired reality testing, idiosyncratic thought, flattened expression of affect, and excessive introspection and fantasy. Mr. M.'s primary areas of conflict seem to center around the expression of aggression, sexual identity, and adult heterosexual expression.

(At this time, please enter the primary or most likely diagnosis of Michael M. on the form provided.)

Client: David D.
Age: 16
Marital Status: Single
Occupation: High School student

Tests Administered: Wechsler Adult Intelligence Scale
Bender Motor Gestalt Test
Minnesota Multiphasic Personality Inventory
Rorschach Inkblot Test
Human Figure Drawings
Rotter Incomplete Sentences Blank--High School Form

Referral Reason:

David D. is a 16 year old white male who was referred for psychological evaluation by a juvenile court judge, for diagnosis and recommendations regarding possible foster home placement and/or mandatory counseling.

David was apprehended by the police at 1:00 A.M. Saturday, June 4, 1977. He was one of a group of juveniles who had attempted to illegally purchase beer at a grocery store. The store clerk had refused to accept a forged driver's license which David presented as proof of age. David became verbally abusive toward the clerk, who maintained his refusal to sell the beer. One of the other boys then assaulted the clerk, while David grabbed the beer and fled from the store without paying for the goods. Approximately 20 minutes later, a policeman recognized the car which the boys were riding in, based on the store clerk's description, and took them into custody. The boys remained in jail overnight, and were released in their parent's custody the following morning. This was David's second encounter with the police: the first involved fighting between two adolescent "gangs".

Background Information:

David was accompanied by his parents to the evaluation. David and his parents provided the following information.

David is the second youngest of six children. He was born in Ogden, Utah, and has lived there his entire life. His father, Mr. D., has been addicted to alcohol periodically for the past 20 years. Mr. D. claims that he is presently "on the wagon," and is attending Alcoholics Anonymous meetings. Mr. D. has changed jobs frequently throughout his adult life. He is currently employed as an automobile salesman.

Mrs. D. worked as a waitress from the time David was 4 years old until 5 years ago, when she gave birth to her youngest daughter. While Mr. D. was working, David was supervised by his four older brothers. David recalled that his brothers often fought with each other and "picked on" him while his parents were out of the house, and that it felt as if he had "too many bosses." David related that he is still somewhat bitter toward his brothers for the way they treated him.

At the present time, David lives at home with his parents, his 18 year old brother, and his 5 year old sister. The family resides in a modest but comfortable middle-class dwelling. The family has strong ties with the Mormon (Roman Catholic) church. (The family belongs to the Mormon (Roman Catholic) faith, but seldom attends church.)

David maintained a C average in school until reaching high school. Since that time, his academic performance has slipped somewhat. During the past year and a half, he has been truant quite often. During grade school, David was described as a "quiet" child who seldom interacted with his peers. Mr. and Mrs. D. reported that David has always had a tendency to react to frustrations with "temper tantrums." In the fifth grade, his parents received a note from his teacher stating that he tended to become overly aggressive during physical education period. David stated that he had one close friend in the third and fourth grades, but that the friend moved away. He remained somewhat of a "loner" from then until his sophomore year of high school, when he began to associate with a loosely knit group of boys, most of whom are one to two years older than he is. All of these boys share conservative political attitudes. David related that he still feels like somewhat of an outsider with this group, although he says that he has begun to "prove himself" in their eyes. Although David refers to the boys in this group as his "friends," he states that he would not go out of his way to help them if they were in trouble.

Mr. and Mrs. D. said that they are very displeased about David associating with this group, which has a community reputation for anti-social behavior. Mr. D. stated, "I expected him to try drinking beer and hanging around with hoodlums. I did the same thing when I was his age. But I had to straighten up and go to work. I wish Dave'd learn from his mistakes and straighten up."

Behavior Observations:

David is an attractive adolescent of average height and build. He appears slightly older than his stated age of 16. During interviewing, he appeared somewhat sullen and reluctant to volunteer information. He occasionally became openly critical of his parents. When this occurred, Mrs. D. typically began to cry, while Mr. D. attempted to reason with David on a rational level.

At the end of the interview, when it was suggested that it was time for testing to begin, David replied, "I ain't gonna take no tests." However, by spending approximately 15 minutes discussing topics of interest to David, the examiner was able to establish a workable rapport with him. At the onset of testing, David stated, "I could fake you out on these tests, but I won't."

Test Results:

On the Wechsler Adult Intelligence Scale, David achieved a full scale IQ of 105, which places him in the "normal" range of overall intellectual ability. Verbal IQ was 97; Performance IQ 113. The

content of David's responses to certain items suggests antisocial or dyssocial trends. Subtest scatter was unremarkable.

The Bender Motor Gestalt Test provided no suggestion of perceptual-motor or neurological impairment. When interpreted as a projective technique, this test suggests that David has some difficulty handling hostile impulses appropriately.

David's Minnesota Multiphasic Personality Inventory profile suggests that he may be having identity problems. He seems to be rebelling against family and/or society. Adolescents with profiles similar to David's tend to resent rules and regulations, and have a low tolerance for frustration. They are sometimes potential socialized or unsocialized juvenile delinquents. They are often suspicious, and tend to keep others at a distance. They are sometimes described as "moody," and are typically very angry individuals.

David's responses to the Rorschach Inkblot Test suggest that he keeps his emotions in rigid check except in particularly stressful situations, which sometimes elicit impulsive acting out of emotionality. David seems to have strong unmet dependency needs, originating from his childhood relationship with his father, which he keeps well hidden.

David's Human Figure Drawings suggest that he defends himself against deep-seated feelings of inadequacy by artificially attempting to boost his self-esteem, and by being evasive in interpersonal relationships.

On the Rotter Incomplete Sentences Blank--High School Form, David tended to respond hesitantly. On some items, he expressed a sort of social aloofness, while on others, he seemed to wish that other people were more trustworthy. David seems to feel somewhat abandoned by his parents and resentful toward his siblings. Many of his responses centered around the theme of rejection of social customs.

Summary:

David D. is a 16 year old who was referred for evaluation by the juvenile court, following an incident of attempting to purchase beer illegally. His present social life revolves around a group of adolescents with a reputation for antisocial behavior. Psychological testing revealed him to be of normal intelligence. He seems to be in the midst of a rebellion against family and society. He has difficulty controlling emotions and hostile impulses in stressful situations. He has unresolved dependency needs, which he copes with by maintaining a suspicious, aloof interpersonal demeanor.

(At this time, please enter the primary or most likely diagnosis of David D. on the form provided.)

Client: Susan S.
Age: 45
Marital Status: Married
Occupation: Housewife

Tests Administered: Wechsler Adult Intelligence Scale
Bender Motor Gestalt Test
Minnesota Multiphasic Personality Inventory
Rorschach Inkblot Test
Human Figure Drawings
Rotter Incomplete Sentences Blank--Adult Form

Referral Reason:

Susan S. is a 45 year old white female who was referred to an out-patient clinic by her husband, John S. Mr. S. stated at the time of the referral that Mrs. S. "doesn't do anything anymore except mope around the house all day and cry and drink." Mr. S. went on to say that as a result of his wife's behavior, the condition of their home is deteriorating, he is no longer satisfied with their marriage, and he is no longer able to invite friends and business associates to his home, for fear of being embarrassed by his wife's mood and excessive drinking.

Mrs. S. related to the interviewer that since the departure of her youngest child to college 2 years ago, she has felt "lonely and empty," and as if "there's just no point to my life anymore." She stated, "Everything seems so worthless: I can't seem to concentrate on anything anymore." She continued to say that during the past 2 years, she has felt tired most of the time, but has had difficulty falling asleep at night. She stated that she has had frequent headaches and abdominal cramps during the past year. She added that her interest in having sexual intercourse with her husband has diminished considerably, and that she seems to have lost her appetite.

Mrs. S. stated that shortly after her youngest daughter left home to attend college, she began drinking more heavily in the evening than she used to in order to facilitate falling asleep. Since that time, she has gradually begun her drinking earlier in the day. At present, she typically begins drinking around mid-day, and consumes just under one pint of vodka per day.

Background Information:

Mrs. S. provided the following information regarding her background during her initial visit to the clinic.

Mrs. S. was born in Salt Lake City, Utah, and has lived there her entire life. She is the oldest of 3 children. Her sister, 3 years younger, and her brother, 5 years younger, are both married and presently living out of the state. Mrs. S. described her father as an honest, hard working salesman, who's business trips often took him away from home for weeks at a time. Mrs. S. recalled that when her father was home, he was usually "too tired" to engage in family activities. Mrs. S. was often

assigned the task of making sure that her younger brother and sister did not "disturb" her father. Her father died 6 years ago of a myocardial infarction.

According to Mrs. S., her mother was a housewife until Mrs. S. reached the age of 12, after which her mother took a job as a secretary, in order to supplement her husband's modest but adequate salary. When her mother was working, Mrs. S. had the responsibility of caring for her younger siblings. Mrs. S. described her mother as being "moody," and as having very high expectations for her. Mrs. S.'s mother currently lives alone in an apartment in Salt Lake City.

Mrs. S. recalled that her mother expected her to achieve well in school, and to assume considerable responsibility around the home. She stated that she always did well in school. She added that as a teenager, her studies and her chores at home left little time for a social life. She attended the University of Utah while living at home and working part time in the University library. She was on the dean's list every semester but one, and earned a bachelor's degree in English. Mrs. S. met her husband during her junior year at college, and married him 2 months after graduating. She worked in the library full-time for approximately one year, and resigned shortly before the birth of her first child, a boy. She gave birth to her second child, a girl, 2 years later. Since that time, she has not been employed outside of the home. Mrs. S. is actively involved in the LDS (Catholic) church. (Mrs. S. belongs to the LDS (Catholic) faith but has not participated actively in church activities since college.)

Mr. S., who possesses a Master's degree in Business Administration, is a vice president of a large insurance firm. Mrs. S. stated that her husband's business endeavors and his social activities with business associates (of which she has never felt a part) occupy most of his time. She added that she, being a "liberal thinker," has difficulty relating to her husband's conservative attitudes. She related that she had been quite content raising her children and caring for the home until her children moved away to attend college. At that time, she began to become "bored," "tired," "restless," and "depressed," and began to drink heavily. Also at that time, she began to realize that her marriage was "missing something."

Behavior Observations:

While being interviewed, Mrs. S. wept profusely whenever talking about her present mood and life circumstances. Although she responded coherently to the interviewer's questions, she offered little spontaneous speech. She appeared somewhat older than her stated age of 45. She exhibited a moderate tremor in her hands. She did not appear intoxicated at the time of the interview.

During testing, Mrs. S. did not show the profuse crying evident during interviewing. She cooperated with the examiner's requests, although she did not initiate activity on her own. While being administered the WAIS, she stated, "I used to be good at all this: I don't know what happened." This was the only occasion during testing when she wept. She appeared quite concerned over her performance on the WAIS.

Test Results:

The Wechsler Adult Intelligence Scale was administered to Mrs. S. She achieved a full scale IQ of 118; verbal IQ 123, performance IQ 110. Her pattern of subtest scores suggests that while her intellectual capacity is in at least the "bright normal" range, the tremor noted during interviewing and testing may be interfering with her fine motor performance. Her profile also suggests a depressive lack of energy.

Mrs. S.'s reproductions of the figures of the Bender Motor Gestalt Test show evidence of a mild to moderate tremor. Otherwise, this test revealed no evidence of perceptual-motor impairment.

On the Minnesota Multiphasic Personality Inventory, Mrs. S. left an unusually high number of items blank, which suggests indecision and depression. Mrs. S.'s MMPI profile suggests that she is in a very depressed state, with self-deprecation, withdrawal, and feelings of guilt and hopelessness. The profile also suggests a high level of anxiety, a tendency toward perfectionism, and a tendency toward somatic complaints. Individuals with profiles similar to Mrs. S.'s tend to drink heavily when they become anxious and depressed, and are often diagnosed as alcoholic.

When taking the Rorschach Inkblot Test, Mrs. S. tended to offer an unusually low number of responses, and had to be repeatedly coaxed to produce more responses. Mrs. S.'s responses indicate strong dysphoric feelings, probably due in part to a sense of inferiority. Mrs. S. exhibits normal emotional reserves, but she seems ambivalent regarding whether to express her emotions or fantasize about them. Mrs. S. shows evidence of an excessively strong conscience, which acts in pervasive, nonspecific ways. Mrs. S.'s contact with reality appears intact.

Mrs. S.'s human figure drawings in general indicate an intact body image. The drawings suggest some social withdrawal, low self-esteem and pessimism, conflict around the issue of maternal dependency, and tendencies toward gastric symptoms, depression, and alcoholism.

Mrs. S.'s responses to the Rotter Incomplete Sentences Blank indicate an overall mood of pessimism and depression. Mrs. S. seems to have experienced considerable rejection from male figures, and she has tried to compensate for this rejection by investing her love in maternal concerns. Also evident in Mrs. S.'s responses is an ambivalence regarding her childhood: she wishes that her home had been emotionally warmer and more relaxed, with less pressure to achieve and be responsible, yet she feels depressed over having given up or lost many of the talents and pursuits in which she was once engaged.

Summary:

Mrs. S. is a 45 year old white female referred by her husband for depression and heavy drinking. Testing indicates that Mrs. S. is well above average in intelligence, and is presently without evidence of organic neurological impairment, except for a mild to moderate

tremor of the hands (probably due to excessive consumption of alcohol). Her mood is markedly depressed, anxious, pessimistic, and self-deprecatory: this seems to be related to her children, in whom she invested considerable emotional energy, having left home to attend college.

(At this time, please enter the primary or most likely diagnosis of Susan S. on the form provided.)

APPENDIX D

Department of Psychology

Utah State University

Thank you again for devoting your valuable time to participating in our investigation of patterns of psychodiagnosis in Utah. According to our records, we have not yet received your diagnoses of the case reports which we mailed to you. We are sure that you intend to follow through with your generous commitment to our project, and that important professional matters have prevented you from finding time to read and diagnose our cases. However, if it is convenient, we would appreciate your response by October 21, 1977, since we must begin our data analysis within a week of that date.

Sincerely,
Robert D. Wadsworth

Keith T. Checketts
Professor