

THE EFFECT OF SIGHTING, DISTANCE,  
AND PERCEIVED MENTAL STATUS ON  
THE ALLOCATION OF REWARDS AND PENALTIES,

by

Michael Joseph Santangelo

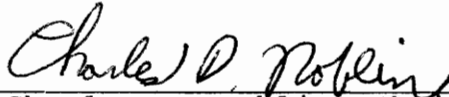
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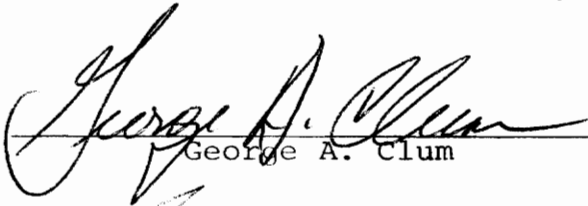
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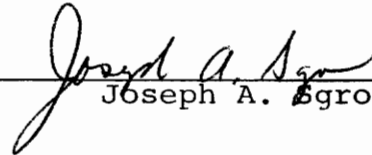
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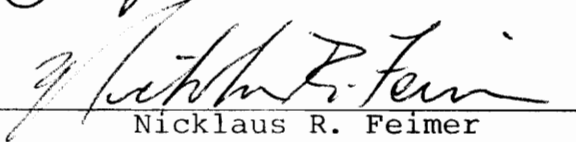
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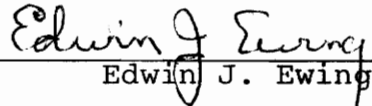
George A. Clum



Joseph A. Egro



Nicklaus R. Feimer



Edwin J. Ewing

December, 1981  
Blacksburg, Virginia

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## TABLE OF CONTENTS

ACKNOWLEDGMENTS . . . . .	ii
INTRODUCTION . . . . .	1
METHOD . . . . .	44
Subjects . . . . .	44
Experimental Design . . . . .	44
Procedure . . . . .	45
RESULTS . . . . .	50
Table 1. Means and Standard Deviations of Units of Measurement (in chips) by Groups . . . . .	55
Table 2. Analysis of Variance for the Effect of Mental Status at a Face-to-Face Close Inter- personal Distance . . . . .	56
Table 3. Analysis of Variance for the Effect of Distance for Teachers of Mentally Ill Confed- erates, in the Face-to-Face Condition . . . . .	57
Table 4. Analysis of Variance for the Effect of Mental Status and Distance in the Face-to- Face Condition . . . . .	58
Table 5. Analysis of Variance for the Effect of Mental Status in the Out-of-Sight Condition . . . . .	59
Table 6. Analysis of Variance for the Effect of the Sighting Variable . . . . .	60
Table 7. Analysis of Variance for the Effect of Mental Status, Distance, and Sighting . . . . .	61
Table 8. Duncan's Multiple Range Test for the Effect of Repetitions . . . . .	62
DISCUSSION . . . . .	63
REFERENCES . . . . .	80
APPENDIX . . . . .	88
VITA . . . . .	97

## INTRODUCTION

That those perceived as mentally ill are generally shunned, looked upon with fear, and viewed as somehow inferior has been considered a fait accompli in the mental health field since the beginning. However, only in the last thirty years or so has an organized effort been made to specify and quantify the stigmatizing effect of mental illness. The most noteworthy of these early studies are Cumming and Cumming (1957) and Nunnally (1961). The Cummings attempted to change the opinion of mental illness in a small Canadian town. They tested residents both before and after a six-month educational effort which utilized films and group discussions to stress three main propositions. These were as follows: first, normal behavior encompasses a wider range than is often considered; second, deviant behavior has a cause and therefore can be understood and changed; and third, normal and abnormal behavior are not qualitatively different, but fall within a single continuum. The results indicated that the Cummings were successful in convincing the populace of the first two objectives. However, the third objective was rejected so vigorously that the Cummings became objects of hostility and their entire program was subsequently ignored.

Nunnally (1961) collected a great deal of data in the Fifties via questionnaires in an attempt to ascertain the

prevailing attitudes toward mental illness, while not attempting to change them. He found a strongly negative view of the mentally ill, that they were considered unpredictable, dirty, dangerous, and worthless. He found no relation between such attitudes and variables such as age, educational, and socioeconomic status.

Excellent reviews of the literature in this area have been compiled by Rabkin (1972, 1974, 1980). In general, the literature previous to the Seventies has characteristically shown that public opinion about mental illness has generally been poor, with a purely medical model of etiology achieving some acceptance late in the Sixties. Such a view asserts that mental illness is an illness like any other, that anyone might be stricken by it, that such people are entitled to a physician's care, and that mental illness is curable with appropriate care, but the acceptability of social contact with the mentally ill lagged behind the adoption of a more medically-oriented viewpoint. It was at this same time, Rabkin (1974) notes, that mental health professionals were beginning to look much more favorably toward a psychosocial explanation for mental illness, with a great emphasis on learning and problem-solving skills for the clients' "problems in living." Attitudes about mental illness have been evolving both among the general public and mental health workers. This has been seen by some to be part of the stigma problem, as professionals



are at a different point than the general public (Schwartz and Schwartz, 1977; Sarbin and Mancuso, 1970). Nevertheless, the more liberalized view of the mentally ill apparently adopted by the general public led a few researchers to declare the death of the stigma of mental illness (e.g., Spiro, Siassi, and Crocetti, 1973). These studies utilized a self-report format elicited from a sample of the normal population and it is difficult to say whether the results reflected the respondents' desire to make socially desirable responses.

Before beginning review of the pertinent literature, a brief explanation of some of the more popular measurement instruments seems in order. By far the most popular such instrument, and one used in the present study, is the Opinions about Mental Illness scale (OMI) developed by Cohen and Streuning (1962). This scale consists of 51 items in the form of Likert scales. The instrument yields measures on five factors for each respondent. The five factors are:

Factor A, Authoritarianism. This is the strongest factor on the OMI. It reflects the view of the mentally ill as an inferior group requiring close supervision and coercive handling.

Factor B, Benevolence. This factor reflects the view that the mentally ill should be treated in a kindly and paternalistic way.

Factor C, Mental Hygiene Idiology. This factor reflects the view of the medical model, focusing on mental illness as an illness like any other.

Factor D, Social Restrictiveness. This factor reflects the view that the mentally ill are a threat to society and the family, and should be isolated and restricted.

Factor E, Interpersonal Etiology. This factor reflects the view that mental illness arises from interpersonal experience, deprivation of parental love, and the like.

The OMI has been shown to be factorially stable (Cohen and Streuning, 1963), and while it was formulated to evaluate the opinions of professional mental health workers, it has been used across a variety of populations with good results.

Ellsworth (1965) also developed an opinion scale containing three factors: Restrictive Control, Protective Benevolence, and Nontraditionalism or Accountability. The first two factors correlate highly with the OMI's Social Restrictiveness and Benevolence, respectively. Therefore, studies which utilize the OMI tend to consider only Ellsworth's Accountability factor when his scale is also used. This factor reflects the view that the mental patient is responsible for his actions and need not be dependent upon hospital staff. Persons scoring high on his factor tend to reward independent actions by mental patients, encouraging them to take control of the conduct of their lives.

Often, when a researcher desires to assess public attitudes about mental illness, vignettes are presented to the subjects so that they might make judgements concerning the

presence or absence of mental illness and, if present, its severity. The most commonly used vignettes are those of Star (1950) or variations of them. They include sketches of a paranoid schizophrenic, simple schizophrenic, anxious-depressed neurotic, alcoholic, juvenile delinquent, as well as a "normal" profile. These have been utilized frequently and no attempt will be made to represent them here (see, for example, Bentz and Edgerton, 1970, for variations of the Star, 1950, vignettes).

Another scale has been formulated by Golding, et al. (1975). It is called the Behavioral Expectation Scale and is composed of 21 items based on the assumption that reinforcement of the "sick role" leads to amplification of deviant behavior. This scale attempts to measure the extent to which someone would reinforce deviant behavior in interpersonal interactions. The authors claim that it is more behaviorally oriented than other scales and shares less variance with them. This would probably prove very useful, given the shortcomings of the general body of literature to be mentioned later. Unfortunately, it is impossible to evaluate this scale, as no other details of it were given in the article.

There are also a multitude of scales which have been specifically formed for a particular study. Many times,

these are in the form of questionnaires which are never utilized again. In light of this, the generalizability of such studies comes under question, as the results could be idiosyncratic to the setting or population.

### Public Attitudes Toward Mental Illness

The end of the Sixties saw public attitudes toward mental illness undergoing a change from a view of the mentally ill as very dangerous, morally impaired person who needed to be secluded, to a more medically-oriented viewpoint. Nevertheless, there were still reservations about social interactions. The literature was beginning to become more equivocal, with a growing minority of studies questioning the existence of a stigma at all. There was a call (Rabkin, 1972) for more research seeking to document actual behavior rather than just answering questionnaires with obvious social desirability problems.

Research in the Seventies has tried to clarify issues, but the situation is, if anything, more confused. Several paths have been taken. There is a group who feel that the general public no longer feels any fear of hesitancy about the mentally ill and that the present-day mental health professionals may be perpetuating a myth that is no longer of any use. If this is true, acting as if there is a stigma when there is not, professionals

may do more harm than good, directly or indirectly causing harmful expectations in ex-mental patients (Sarbin and Mancuso, 1970; Page and Page, 1974; Herbert, 1978).

Another school to be reviewed feels that there is a stigma, which may reveal itself primarily or exclusively in behavior, rather than self-report. The general public is becoming more knowledgeable about mental illness (e.g. Rootman and Lafave, 1969) and is able to speak the current officail opinions easily. The true test comes, it seems, when an actual confrontation takes place. The outcome in such situation is not so clear-cut. This has been the concern of Amerigo Farina and his colleagues. The studies utilizing behavioral situations have shown that saying and doing can be far apart indeed.

A third point of view seeks to specify the pertinent variables involved in rejection of the mentally ill. Kirk (1974, 1976) has attempted to isolate the effects of the actual lable of "mentally ill" versus "under stress." LaTorre (1975) considered age as a variable. The results of this view have shown that the idea of stigma is quite complex, and that referring to the "stigma of mental illness" may be too simplistic a notion (Pollack, et al. 1975). Each of these viewpoints will be reviewed by representative literature in turn.

The studies which follow dispute the existence of rejection of the mentally ill and assert that whatever stigma there was, no longer exists. Rootman and Lafave (1969) attempted to find a town similar to Blackfoot, the pseudonym Cumming and Cumming (1957) used for their target community. They felt that such a direct comparison could effectively measure any change in attitudes toward mental illness, at least in small Canadian towns. The subjects were asked to evaluate the Star (1950) vignettes and to rank the undesirability of various illnesses, including mental illness. Rootman and Lafave found a marked increase in knowledge of mental illness since the Fifties, and mental illness was not considered any more undesirable than physical ailments. The authors take special care to warn their readers on several counts. They realize that their sample was limited, that there may be urban-rural differences, and that they assessed only self-report. They make special note of the fact that what one says and what one does are many times two different matters. To muddy this picture even more, D'Arcy and Brockman (1976) returned to the Blackfoot of Cumming and Cumming (1957) to assess current attitudes. They found that, in general, the attitudes were quite similar to the 1957 study. However, there was an increased

awareness of psychiatric symptoms in terms of identifying a vignette of a mentally ill person versus someone with "something wrong," such as alcoholism. So, while sophistication had evidently increased in Blackfoot, the old attitudes seemed to be dying hard.

Crocetti, et al. (1971) asserted that while more educated people are more informed, there is no difference in attitude, regardless of educational level. Utilizing a blue collar population in Baltimore, social distance reports were gathered. The results indicated that there was much acceptance for the mentally ill, with younger people being more accepting. The medical model seemed to hold sway, with subjects feeling that mental illness is an illness like any other and that it can be cured. Given these heartening results, Crocetti and his colleagues asserted that prejudicial attitudes toward the mentally ill were disappearing in urban areas, complementing Rootman and Lefave (1969).

Siassi, et al. (1973) followed this study by attempting to measure social distancing of the mentally ill with 653 UAW members. They found that there are intervening variables which play a role in acceptance or rejection. The workers tended to stigmatize statements containing the word "someone" rather than a specific sex, and males

were stigmatized more than females. Nonetheless, they reported that the only very strong injunction they encountered was against marriage, especially to the nebulous "someone." This has led them to question whether the factor of a person's mental illness is the most important characteristic attended to, or, given certain other variables, whether it makes any difference at all, since it seemed that the subjects of this study were willing to rent a room to or join a club with someone who had been mentally ill.

Spiro, et al. (1973) have also stated that there no longer is a stigmatizing effect of having been mentally ill. In Baltimore, they interviewed 737 mainly lower class subjects in an attempted replication of Siassi, et al. (1973). Via social distance scales, they determined that the respondents were just as likely to form associations with mentally ill individuals as with normals. Female patients were given slightly more accepting responses, but overall the effect of sex was not significant. The authors urged the dropping of the term "stigma" when referring to the ex-mental patient as they feel it is useless and does harm by setting up expectations in ex-mental patients.



The unfortunate aspect of these studies is that they used only questionnaire data, with no behavioral observations, contrived or otherwise. Since there does seem to be a behavioral component to attitudes about mental illness (cf. Farina and Felner, 1973), these results must be viewed cautiously.

Marsden, et al. (1977) did an interesting study of attitudes among children regarding normal and disturbed peers. Using 31 fourth and sixth grade students, the investigators had subjects judge four vignettes of behavioral descriptions. It was found that subjects reliably distinguished normal from disturbed accounts, and could rank degree of disturbance. An additional measure of likability did not reveal any differences. It seems that even at this age, people are sensitive to the norms of society and can distinguish deviance when it is presented. While no stigma was admitted to, it is unfortunate that some contrived interaction was not attempted. An attempt to secure opinions of etiology from these same subjects was done by Kalter and Marsden (1977). Results indicated a variety of explanations and factors other than severity of disturbance

seemed to determine how the subjects saw the etiology of the vignette character's disturbance. These other factors were not elaborated, however.

These studies dispute the claim of continued rejection of the mentally ill. They have used rural samples, urban samples, and children. All of these suffer from a common flaw, however. There is no behavioral measure in a natural or contrived setting. With time, magnanimity toward the mentally ill seems to have become socially approved (Rabkin, 1980), and attitudes expressed on the measures used may reflect this. While these attitudes are laudable, they mean nothing if they are not backed up by action. There seems to be a serious need to extend these studies in this direction.

In contrast to the preceding studies, the following studies point to the continuing existence of stigma and rejection to varying degrees. There are also several behaviorally-measured investigations, in an attempt to assess actual attitudes rather than hypothetically expressed responses to "what if" questions.

Bentz and Edgerton (1970) surveyed the residents and civic leaders of rural areas of North Carolina to assess the attitudes among non-urban populations. These were preliminary data to be gathered before a program to assess the ability of leadership in a community as

a factor for general change. They found that in general, attitudes in the two groups were similar, except leaders were less likely than the general public to ascribe etiology to moral, hereditary or organic factors. The general populace saw mental hospitals as needing protective walls, a place for the segregation of the mentally ill, to protect the public. Civic leaders considered this to be necessary less often. Both groups considered this as an answer to some extent. Both groups expressed optimism for treatment and that mental illness could be cured. There was some confusion over opinions about current treatments and psychiatrists, as the sample felt generally that they were not qualified to pass judgment in such things. Bentz and Edgerton (1971) then used four modified Star (1950) abstracts (simple schizophrenic, alcoholic, anxiety neurotic, and action out child) with a social distance rating to assess attitudes. Only the alcoholic was significantly identified as being mentally ill, while in general, the sample was willing to interact with other categories, but never on a very personal level (e.g. let your child marry one, fall in love with one). It seems that attitudes among this sample lagged somewhat behind the general population in that they still tended to ascribe moral reasons for mental illness more often than typically reported.

Fracchia, et al. (1976) reported that over time, there has been a tendency to accept the mentally ill, but only in that more knowledge can be demonstrated by the public about mental illness. It is now socially acceptable to talk about touchy subjects. It is now socially acceptable to know about mental illness. However, Fracchia asserted that there still remains a great deal of behavioral rejection. Using a semantic differential, Fracchia determined that his sample of the general populace no longer saw the mentally ill as especially dirty, worthless, or dangerous (cf. Nunnally, 1961). The highest rated poles were excitable, strange, tense, strong, uncertain, unsure, unpredictable, convincing, active and mysterious. It seems that rejection depends on whether the mentally ill are seen as threat-bearers to society. They may produce fear (unpredictable and dangerous correlated .74). That is, the rejection is affect-laden more than cognitive. Fracchia concludes by saying that the medical model is being accepted by the general public and that greater knowledge has been gained regarding mental illness, but the behavioral stigma still exists, which makes it difficult for the mentally ill to fit into society.

In an attempt to measure the power of the label "ex-mental patient," Frachia, et al. (1975) utilized a

semantic differential technique. The investigators hoped to see if increases in information via a descriptive paragraph would increase the discriminability of different levels of severity of mental illness. The subjects were 30 suburban homeowners, each of whom was given one biography to rate, which detailed the same symptoms and behaviors to all, but in which the severity varied from mild to moderate to severe. It was found that the mild case was rated differently from the moderate or severe cases, were considered less active than the severe, and the mild case was rated more potent in eliciting an "understanding" feeling in the respondents than the other two cases. This study seems to show that the provision of information is helpful regarding those ex-patients who have had a mild disturbance, even overruling the stigma of the label.

Occasionally, attempts are made to assess student ideas about mental illness, particularly etiology. The following two studies did just that. Selby and Calhoun (1977) assessed the perceived causes of mental illness from the responses of 394 undergraduates. Likert items were used with 52 statements to be rated. Factor analysis revealed five primary factors, namely (in order of strength), Personal Characteristics, Organic Causes, Natural Disasters,

Marital Crises, and Childhood Family Conditions. The first, second, and fifth of these represent stable casual factors, while the other two are more unstable. This seems to favor the medical model more than a psychosocial perspective, although less of an "anyone can get it" stance. However, it should be noted that even the strongest factor, Personal Characteristics, accounts for only 8.5% of the variance, with all factors accounting for only 29.2% of the variance. It seems, then, that with this sample, subjects are not at all sure of their ideas of the etiology of mental illness.

Hare-Mustin and Gervine (1974) assessed the attitudes of 84 students at the beginning of an Abnormal Psychology course by means of a questionnaire. The students views of etiology were almost equally divided among psychological weakness, external causes, a combination of both, and organicity. Psychology majors most often chose external causes. Treatments most often recommended included group or individual therapy, and behavior modification. Drugs or hospitalization was not recognized as an appropriate treatment at all. Their choice of therapist tended to be one of their own sex, and young. These results seem to indicate that psychosocial and interpersonal etiologies are taking a foothold with college-age people, but the "inferior class" orientation still holds significant sway as well, although

its hold seems to be weakening.

The above studies did not have a behavioral measure, yet showed evidence of stigma. Part of the reason seems to be the use of a moral weakness etiological stance in Bentz and Edgerton (1970, 1971) and Hare-Mustin and Gervine (1974), although Fracchia, et al. (1976) found stigma among those accepting the medical model as well. Several of the studies to follow attempted to measure stigma behaviorally in contrived situations.

Farina and Felner (1973) had a confederate go to interview at 32 places of employment advertizing for jobs. These interviews were taped secretly. A nine-month gap was left in each application. When queried, half the time the confederate replied he had been traveling, while the other half of the time he said he had been in a mental hospital. At the conclusion of the interview, the confederate asked the interviewer what the chances seemed of his acquiring a job. In the mental patient condition, interviewers were significantly less encouraging as rated by a panel of blind judges. In addition, the mental patient condition was offered only half as many jobs as the traveling condition. Given that the rest of the interview was identical regarding the information presented, it seems that the fact that the confederate presented himself as a mental patient half the time made a difference.

The true measure of stigma existence, it seems would be actual social distance when encountered by someone on a more personal level. Farina, et al. (1974) attempted to approach this by using tape recordings. The experimenter went into a middleclass neighborhood with two tapes, a normal tape and a slightly abnormal tape. The subjects were told that the tape was of a mental patient or of a surgical patient, creating four conditions. Respondents were encouraged to be frank and not give socially desirable responses. The respondents seemed to feel that the mental patient had a behavioral deficiency and was objectionable for that reason, yet they felt they would support him. They felt that they would be nice, while others would discriminate against him. For example, while respondents tended to say they would invite the mental patient to a party, they expected him to have trouble finding a job. Subjects also preferred the normal to the abnormal tape overall, but in the case of the mental patient, the abnormal was rated more favorably. Farina felt this was so because it fit the subjects' expectations of mental patients. There should be some care exercised in generalizing these results, since the sample was selective, interviewed during working hours and had agreed to rate the tapes.

Interpersonal consequences of being labeled mentally ill were also studied by Farina, et al. (1976) in a contrived "teacher-learner" task. The subject was always the teacher,



while a confederate was to learn a serial button-pushing task and was to be punished by shock when wrong. There were no cross-sex interactions, unfortunately, so males only interacted with male confederates, and the same for females. Males supposedly mentally ill were given longer and stronger shocks than male "normal" confederates, while males supposedly mentally retarded were given lower and shorter shocks than normals. Females, whether mentally ill or retarded, were given lower and shorter shocks than normals. Farina explained these results as indicative of the greater compassion of the female subjects with males showing compassion only to retardates, while being harsher to mentally ill confederates. This differential treatment of supposedly mentally ill individuals seems to be a consistent finding (Farina, 1980). The sex of both the respondent and the mentally ill recipient seems to be an influential factor in a behavioral encounter.

An interesting side-light to the Farina, et al. (1976) study was the after-manipulation. Subjects were asked to rate the intensity and duration of the shocks they had given. They did well estimating intensity ( $r=.80$ ), but rather poorly on duration ( $r=.20$ ). Farina feels that the duration estimation is a good attitudinal measure, getting to their actual feelings since they cannot estimate it well and therefore probably cannot monitor it well while doing the task. This is another bit of evidence that rejection of the mentally ill

exists at an affective, rather than cognitive, level.

Another attempt to measure behavioral concomitants of stigma was performed by Page (1977). This Canadian study attempted to see if being mentally ill seriously affected one's chances of being able to rent a room. A female confederate made 180 phone calls replying to newspaper ads for rooms for rent. The woman would mention her situation, imminent release from a mental hospital, soon to be released from the hospital, a brother's imminent release from jail, or control (no jail or mental illness). She would then ask if the room were still available. In both the mental illness and jail conditions, the woman received significantly more negative replies, this in light of the newspaper's being the most recent edition with calls being made immediately after receipt. Evidently, the old comparison (Lamy, 1966) of a mentally ill person being regarded at least as badly as an ex-convict still holds.

Assessing stigma from another perspective, Lagos, et al. (1977) examined the hospital records of 400 patients to determine incidence of violent behavior being used as a basis for admission. They attempted to find if there was a reasonable basis for the layman's oft-quoted assumption that the mentally ill are dangerous. Considering violent behavior to include direct violence against people or things, non-threatening verbal abuse, threats, or loss of impulse control, 38% of the records showed the hypothesized connection, with about

60% of these records including direct violence. There was no difference in incidence of violence across race, but males tended to be more violent than females.

A serious shortcoming of this investigation, however, is that there was no comparable sample chosen from among the general population, so there is no way of knowing whether this is a significantly greater incidence than is found normally, anywhere. Also, the categorization of violent behavior used was so all-encompassing, it is suspected that choosing such a sample from the general population would yield similar results. Steadman (1980) also has criticized on several counts. Such studies ignore the fact that the basis of involuntary admission criteria in most states requires believed dangerousness. Also, the legal defense of "not guilty by reason of insanity" may be overapplied, and the average length of stay in a mental hospital has changed from years to weeks, increasing the chances of criminal recidivism.

The actual locus of rejection generation has been questioned. Page and Page (1974) wondered if it was the patient himself. They felt that rejection may take on the characteristics of a self-fulfilling prophesy, a position that would be favored by Sarbin and Mancuso (1970). The study by Farina, et al. (1971) bears on this point. This study examined the effect of knowing that someone a subject will meet knows he is a mental patient. Each of 30 male patients met with a blind confederate and participated in a cooperative game with

him. Half the patients thought the confederate knew their current status while half did not. After the task, each subject was rated by the confederate for anxiety, amount of speaking, etc. The "patient" group was described as more anxious and quieter, but this was not significant. However, since the study took place at the hospital, the setting could have elevated the relative level of anxiety in all subjects since it is difficult to see how the non-patient group could feel the confederate did not even suspect them to be patients as well, thus eradicating any difference.

In an effort to clarify this, ex-hospitalized patients were used in a replication of the first study, using a "job interview" situation with a blind confederate. Again, half thought the interviewer knew they were mental patients, while half thought the interviewer thought they were surgical patients. The confederate in this case judged the mental patient group to be more anxious. Therefore, it does seem to be important to the patient to feel that such a person does not know his psychiatric history.

The literature in this section seems to indicate that there is a tendency for a stigma to reveal itself in actual or contrived behavioral situations, but even here the evidence is not clear-cut. It is possible that there are characteristics of the subject, the patient, or both, which have a mitigating effect. The following studies sought to clarify the situation of person characteristics.

Hood (1973) felt that measuring global attitudes toward mental illness is not a fruitful enterprise. Rather, he felt, one should look at particular categories using dogmatism as a relevant variable. According to Hood, a dogmatic person is one who accepts others whose beliefs appear similar to his own. A highly dogmatic person would reject anyone whom he sees as violating his norms, which are usually strongly aligned with society's in general. Hood used college students as subjects to assess attitudes regarding suicide attempters and homosexuals. Hood felt that homosexuals would be less rejected even by high dogmatic individuals because of their recent advances in coming to a more accepted position in society. He utilized a semantic differential task, a scale modified from Nunnally (1961), and a scale constructed to measure dogmatism. The hypothesis was borne out in curious fashion. High dogmatic individuals accepted homosexuals on the Nunnally (1961) scale, which reflects societal views, yet rated homosexuals significantly lower on the semantic differential. It is as if high dogmatic persons espouse society's norms while still harboring a good degree of emotional rejection for homosexuals. This may be an analogous situation to the plight of the mentally ill.

Hood (1974) replicated the earlier study by showing a change in rejection in 76 Introductory Psychology students. Both pre and post measures were taken. After a seven-week

span, there was no difference between high and low dogmatic persons on cognitive measures like Nunnally (1961). There was a great difference still on the affective semantic differential, however. There is a weakness in this study, though, in that the cognitive measure used was testing in the course, a normal part of the curriculum. It must be asked whether the change in score reflects simply memorization of material on the part of subjects to assure a good grade in the course.

The question of personal adjustment and its relation to rejection of the mentally ill was investigated by Lieberman (1970). It was hypothesized that those who were more informed regarding mental illness were also the most tolerant but least adjusted personally. Lieberman used 121 college students gathered from three states. The OMI and the scale of Nunnally (1961) (knowledge of mental illness) were administered. The students in general attained lower Authoritarianism scores than the general public, with the higher scores reflecting beliefs that the mentally ill lack willpower, have more morbid thoughts, and need more guidance and support than normals. The more informed students also scored in such a way as to reflect more tolerance of the mentally ill.

Regarding these attitudes and personal adjustment, Lieberman gave 67 additional students the OMI and the MMPI. Those scoring lower on Authoritarianism tended to have higher T-scores on the MMPI especially for the Hy, Pd, Mf, and Pa scales. However, the average T-score for those scales was

59, with a range of 56 to 65. Such scores are not unusual in a college population and the question can be asked whether this reflects less adjustment or not. Nevertheless, the scores did come out in the predicted direction. Lieberman (1970) noted that these generalizations of more informed implying more tolerant but less adjusted apply only to non-patient, non-professionals, are not necessarily the least adjusted.

Subcultural values of the perceiver have not been given much attention as a variable affecting acceptance of the mentally ill. Sue, et al. (1976) found differences among Caucasian and Asian-American students, which seemed to reflect sub-cultural norms. This study used 62 Asian and 81 Caucasian college students to assess ideas of the causes of mental illness. Utilizing statistical controls to partial out undesired demographic characteristics, Asians attributed etiology to organic causes, avoiding bad thoughts, having respect for parents, and letting mother handle the children while father makes the major decisions. This would lead persons from an Asian subculture to frown upon those with mental illness, since it reflects to them poor family conditions and a moral weakness. Stigma seems to be cross-cultural, while the reason for stigmatizing the mentally ill may vary.

More often investigated are characteristics of the patient. Such studies have taken various forms. For example, using dichotomous descriptions, Fletcher (1969) assessed the effect

of age, sex, and behavior of case person. Using biographies, Fletcher let age, old or young, sex, male or female, and behavior, withdrawn or aggressive, vary. The subjects were middle class individuals. Each subject saw vignettes of the opposite sex only. Subjects were asked if the person described was deviant, responsible for the deviation, and whether and where referral should be made. Wives tended to recommend referral more often for withdrawn than aggressive men. Males' referral rate for women was not significantly different from males' referral rate for other males. The aggressive vignette was attributed more self-cause, while withdrawn vignettes held the opposite. The overall referral rate to a psychiatrist was 20%. This study seems to reflect to some degree stereotypical males and females, since aggression was tolerated more frequently in males.

From an interesting perspective, Linsky (1970) formulated the "exclusion index" defined as the ratio of involuntary to voluntary admissions to mental hospitals, to see if certain personal characteristics predisposed one to be excluded from the community via involuntary commitment. Social distance ratings of six racial groups (White, Black, Japanese, Chinese, Filipino, and Indian) were obtained from 557 night school students in Washington state. The rankings correlated highly with the exclusion index Linsky had calculated from the hospital records. A curvilinear relation-



ship was found between education and the exclusion index, with a high school education being the least excluded (college degree individuals had a similar exclusion index to mid-high school persons).

Linsky also found that persons with looser social ties to the community were excluded much more often. Such groups included the unemployed and the unmarried. Males also are excluded more often than females, evidently because illness is more excusable in females. It seems then that society has a way of excluding persons who already are discriminated against for other reasons. The contribution of such reasons to the stigma surrounding a mental patient cannot be ignored.

In a more traditional vein, Bord (1971) attempted to measure the attitude and rejection of a stimulus person by college students by varying information on the stimulus behavior, help source, and social status. The subjects were 350 Introductory Sociology college students. Each student saw five biographies and was asked to indicate if the person was mentally ill, and if so, how serious was the condition. No subject rated a biography that had a certain symptom or help source more than once, but saw two or three low status biographies and the rest high status, or vice versa. It was found that the more psychologically sophisticated subjects, determined by a knowledge test, could rank behaviors on the basis of psychiatric symptoms. Rejection, measured by a

social distance scale, increased as the behavior was seen as more unpredictable and threatening, independent of the level of sophistication of the subject. Help-seeking behavior was seen to be a sign of loss of control by the unsophisticated, which made the symptoms seem more severe. Finally, social status had a significant effect upon attitude. Biographies of high status persons were rejected much less than those of low status, with the greatest rejection of all accorded to low status, threatening biographies. The most systematic influence on the judgments in the study came from the behavioral description in the biographies, however. Bord took this to mean that deviant behavior violates highly-valued norms and the more deviant the behavior, therefore, the greater the rejection. He called for the education of the public to the fact that the mentally ill are not unpredictable and threatening generally, and blamed the media for propagating this image.

In another contrived behavior study, Farina, et al. (1973) measured the reactions of workers to confederates posing as ex-mental patient job applicants in three situations. The first study used female subjects and workers in a department store, while the other two used workers at a VA hospital, one group of males and one group of females. There were never any cross-sex interactions in any of these studies. There were four conditions in each study, mental patient versus

non-mental patient crossed with calm versus tense behavior during the interview. In all three situations, the tense confederate was viewed as a less desirable work-mate, regardless of other conditions. For females, there was no effect of mental status in either study. However, the male VA hospital workers saw the mental patient as seeming less reliable, and more unpredictable. In all conditions, workers felt most uneasy with the tense non-mental patient, evidently because they saw no explanation for the confederate's tension.

An additional person characteristics investigated has been that of the psychiatric label. It seemed possible that the word itself may have effects on the individuals. Loeb, et al. (1968) explored the effect of labeling upon attitude in a study which varied abnormality of behavior as well in biographies presented to business men and vocational rehabilitation counselors. The labels given were paranoid schizophrenic, nervous breakdown, interpersonal problem, and normal, while deviation was rated at high, moderate, and low. There are ten subjects per occupation per group, with each subject rating one of twelve possible biographies. Label had little effect in this study, while degree of abnormality was significant only in that the vocational counselors saw greater deviation as indicative of difficulty in making lasting friendships. Subsequent research has, on the other hand, shown an effect of labeling as well as the labeler. It could be the

difference in the sophistication of the subjects, or a greater tendency for subjects in later studies to categorize. For example, Kirk (1974) sought to ascertain the effect for labeling on rejection of the mentally ill. He manipulated behavior deviation (normal, moderate, severe), label (mentally ill, wicked, under stress), and labeler (psychiatrist, family, person himself, "someone") in vignettes given to community college students. Kirk used vignettes of a depressed person, an anxious neurotic, and a paranoid schizophrenic; however, the subjects did not see the diagnosis. Each combination of variables was seen by 24 subjects, making 864 in the entire sample. The only significant finding was that the greater the behavioral deviation, the greater the rejection. The behavior of the person was the only criterion used to determine rejection. The effect of label was not significant, indicating that this sample said they would not hold "mental illness" against a person any more than if he were just "under stress."

Kirk (1976) used 900 community college students to assess attribution of personal traits using the same basic design as the above study. Each student read on vignette and rated the individual on an adjective checklist. The only main effect was for behavior, with "severe" being rated more negatively than "moderate" than "normal." There was also an interaction effect for the psychiatric labeler with normal and moderate behavior, as if an expert labeler imparted a

greater negative halo. Kirk concluded on the basis of these studies that stigmatizing is a complex process, involving several interactive variables with the attendant confusion of sorting the matter out.

Herson (1974) measured teacher attitudes toward students presented via vignettes. There were four cases (marginal retardate, depressed neurotic, "emotional disturbance," and paranoid schizophrenic) used, with sex of student and use of labels, behavioral descriptions, or both, being varied. The teachers, 64 male, 118 female, were each given one example of the four cases. These vignettes were rated on a seven-point Likert scale (institutionalize -- normal). No difference was found due to stimulus sex, but labeling had a greater effect than behavior alone, as did the combination. Here the label was an important determiner of recommended disposition of the case. Of course, teachers, being more educated, may place more regard in the consequences of a label, especially if they believed the label was from an "expert" in such things.

On the other side of the question, Lehmann, Joy, Kreisman, and Simmens (1976) utilized videotapes with college students to assess the importance of labeling versus behaviors in determining degree of rejection. Labeling failed to discriminate, but behaviors did significantly. There was no interaction between these two variables.

In an attempt to tease out some significant factors in the patient regarding attitudes toward mental illness, LeTorre

(1975) had his college student subjects read biographies of a patient, either male or female, obsessive-compulsive or paranoid schizophrenic, and young or old. His results showed no difference for sex in the obsessive-compulsive, and age never was a significant variable. The scales used included severity, general deficiencies, expectability to befriend the patient, need of therapy, and probably outcome. Female subjects rated the schizophrenic as most ill, and most difficult to befriend. The female schizophrenic was judged by all to be most in need of help, but with good outcome. Overall, male subjects were more accepting, rather biographies as displaying less illness and easier to befriend than did females. This is at odds with, for example, Farina, et al. (1973) who found females to be generally more accepting, but the present study used a cross evaluation by sex procedure, differing from other studies.

Bowen, et al. (1978) attempted to increase participation in a foster home program for ex-mental patients by conducting a campaign of talks to civic groups and experimental placements in a community. As part of their assessment, they sent out a total of 989 questionnaires, sent out in three batches during the campaign, concerning causes of mental illness and chances for recovery. They received a total of 235 responses which revealed that younger persons endorsed an interpersonal etiology, while older people tended to endorse organic causes. In both age groups, there was optimism regarding hopes for

recovery. Bowen's program had no effect upon attitudes, percentage of returns, or increased placements, however. It was felt that placements could be arranged to give maximum benefit to patient and caretaker by assigning, for example, persons with organic conditions to older volunteers. A measure of social distance was also taken and revealed that while many felt willing to take in a patient if the need arose, there was a desire to have someone they knew personally come into their home rather than a total stranger.

Many variables have been investigated including sex or perceiver, sex of patient, diagnostic label, labeler, age, race, behavior severity, etc. None of these has consistently turned up as a necessary or sufficient attribute. Evidently, the warning of Pollack, et al. (1976) should be heeded. Accurate, concise statements of dimensions are needed as the rejection process is complex. Saying that the mentally ill are rejected is a gross over-simplification needing further specification as far as circumstances of the situation, the participants, etc. are concerned.

In summary, the bulk of the literature of public opinions about mental illness over the past ten years seems to demonstrate a continuing, if more subtle, stigma. The mentally ill are rejected more on an affective than cognitive level, as the general public ascribes more and more to the medical

model. What seems essential at this point is further pursuit of relevant variables of rejection, as well as a greater emphasis on the actual circumstances of rejection, which seem to be contained in contrived or actual behavioral encounters. The work proclaiming the death of the stigma of mental illness does not seem to be supported in general, but rather it seems that the stigma has gone "underground" to a level which does not overtly contradict the societally-desired responses found on questionnaires.

That the mentally ill are considered in a different light by normals has been substantiated. However, the behavioral manifestations of such consideration have received only a little attention (see, e.g. Rabkin, 1980). It also seems that the behavior of parties in an interaction is where stigma may be manifested.

It seems to be a general assumption among reviewers in this area that the evolution of attitudes toward the mentally ill from seeing them as morally degenerate, to the adoption of a medical model view, to the adoption of an interpersonal etiology may indicate an increase in positive behaviors toward the mentally ill. At the current time, it seems that the general public adheres to a medical model view (Rabkin, 1980). In certain cases, some positive behavior, particularly among females, has been noted (Farina, et al. 1976). It is hoped that an interpersonal etiology view becomes popular, which



may lead to further positive behavior toward the mentally ill.

There are circumstances which have not been experimentally investigated. For example, in studies where reward or punishment has been meted out, actual allocation has not been done in the face-to-face presence of the mentally ill individual. But such a situation can present an experimental analog of day-to-day contact between the ex-mental patient and other individuals. Heretofore, the differential dispensing of rewards to the mentally ill by normal strangers has not been dealt with in the laboratory either face-to-face or out-of-sight. The present study attempted to answer the question of whether there is an effect of the mental status of the receiver upon the allocation of reward and penalty by a normal stranger, when the receiver is either face-to-face or out-of-sight of the dispenser.

In the face-to-face situation, one of two conflicting processes may be called into play. First, while arousal varies inversely with personal proximity (Barash, 1973), there still seems to exist an added dimension in the case of the mentally ill (e.g., Altman, 1975). That is there seems to be a fear which exists on the affective level over and above that felt toward a normal stranger. That fear toward the mentally ill still exists, by consideration of their supposed dangerousness and unpredictability, has been asserted by Fracchia et al. (1976). Media sensationalism has been cited for the

continuation of such attitudes by Bord (1971) and Schwartz and Schwartz (1977). As another example, an evident lack of trust in the predictability of behavior cost Senator Eagleton the vice-presidential nomination in 1972 once his psychiatric history became known (Rabkin, 1974).

If normals do still fear the mentally ill, it might be expected that normals would behave so as not to upset a mentally ill individual, ingratiating themselves to the mentally ill. According to Jones (1964), ingratiation involves influencing another concerning the attractiveness of one's personal qualities, to elicit positive regard or consequences. Physical distance should also have a mitigating effect, with increased distance decreasing the need felt for ingratiation. Therefore, the allocation of reward and penalty should approach that given a normal respondent as distance increases.

The second, competing idea in the face-to-face situation involves motivation. Kelley (1967) hypothesized that attributions toward others tend to be ascribed to personal conditions rather than environmental conditions. The allocation of reward and penalty between normals seems to involve an attempt to affect performance by affecting motivational levels. For example, in the case of reward allocation, Leventhal and his colleagues (e.g., Leventhal and Michaels, 1971) have shown that persons seen by the allocator as having constraints that might interfere with successful completion of some task are

rewarded greater than those who have no such constraints. The study mentioned immediately above dealt with a physical task. In that study, subjects gave a greater reward to a short person said to have jumped a certain height than a tall person jumping to the same height. Academic tasks have also been addressed. Leventhal and Whiteside (1973) showed that subjects tended to assign higher grades to those students who worked to a relatively greater amount of their potential, thereby attributing performance in others to motivational factors. These studies utilized male subjects.

Banks (1976) addressed both reward and penalty in his study using a subject population of college girls. He found that these subjects gave a greater reward and a greater penalty to those who were perceived as differing from themselves in some fashion. He postulated that those perceived as different from a subject will be given attributes for performance based on internal cues of the dissimilar person, such as his motivational level. The greater rewards and penalties therefore reflected an attempt to change the dissimilar person's motivational level, to the end of improving that person's performance.

Therefore, it seems that if normals do not fear the mentally ill, but merely consider them different in a not unusual way (an idea in agreement with the endorsement of a medical model explanation of mental illness), normals would treat the mentally ill in a reward-penalty allocation situation as they would treat any "normally" dissimilar person,

by an attempt to change his motivational level. Also, reward and penalty allocation would not artifactually be affected by physical distance, beyond a point considered to be "comfortable." This is so since, given limits, interpersonal space will not have an effect upon another's motivational level, so long as this distance is beyond that considered appropriate to the situation (Broekmann and Moeller, 1973).

These two positions confront each other in a way that addresses a basic question. To endorse a motivational standpoint admits that normal subjects consider the mentally ill to be dissimilar in a quantitative way, a way directly comparable to the way simple strangers are considered. However, if the fear standpoint is borne out, it can be argued that normals regard the mentally ill as qualitatively different, a way that normals cannot reconcile as being within the realm of behavior which is considered reasonably attainable. This was the finding of Cumming and Cumming (1957). Since that time, the questionnaire literature asserts, the general public has adopted a medical model view of mental illness. If the fear standpoint is endorsed by the subjects of this study, this has serious implications for the veracity of the questionnaire data.

In an out-of-sight situation, it has been demonstrated that normal males treat males considered mentally ill more harshly than they do normals (Farina et al., 1976). No comparison of relative reward magnitude has been studied. This

study also addressed this question. Zimbardo (1969) has also addressed the dispensing of penalty in terms of "deindividuation." A person who feels that his anonymity is assured will treat others more harshly than when he is made to feel known or conspicuous. Zimbardo (1969) considers this to be a letting loose of inhibitions to act by virtue of anonymity. Such behavior also seems to intensify if it is directed toward those considered less desirable or stigmatized (e.g., Zimbardo, 1972; Kleck, Buck, Goller, London, Pfeiffer, and Vukcevic, 1968). Therefore, it is reasonable to expect harsher treatment of mentally ill learners by anonymous, normal teachers. In the case of reward, this same idea could be presumed to hold. Here it takes the form of a lessening of reward to a mentally ill learner, a tendency to reward less than would be expected in an interaction between normals. In this case again, harsher treatment is being meted out to the mentally ill learner.

One other consideration that may influence interactions such as the ones conducted in this study is the question of task-specific deficits. That is, are the reward-penalty structures influenced by the teacher's perceptions of the task at hand compared with any specific deficits he presumes his learner to have. In this study, the question became would the teacher be less likely to penalize a mentally ill learner if he felt the task, one involving recall, played to

a mentally ill person's weakness, namely, his powers of thought. The literature in this area is equivocal. The studies cited that were conducted by Leventhal and his colleagues used task-specific deficits to demonstrate the effect. In the jumping task (Leventhal and Michaels, 1971), height of jumper was the deficit. In the academic task (Leventhal and Whiteside, 1972), information about the intellectual capacity of the performer was imparted to the subjects. However, in other studies, it seems that the deficit need not be specific to the task in order to elicit the hypothesized reward-penalty structure. In Banks (1976), the deficit of the confederate was in sociability, while the task involved concentration.

Goodstadt and Kipnis (1970) attempted to address this question most directly. In their study, the subject was to be the "supervisor" of several "workers" on a production task. The subject never saw his supervisees and any feedback on worker performance or personal communications from his workers were bogus. The subject had a range of powers from raises in pay, to threat of wage reduction, to actual wage reduction, to threat of firing, to actual firing, which he could use to maximize performance of his workers. For each subject, there was a "problem" worker, either because of a lack of ability or a lack of motivation. While subjects tended to use threat more often in the motivational case, the actual deduction in wages did not differ between the ability and motivation groups.

The present study involved no threat, only a penalty, akin to the reduction in pay power of the Goodstadt and Kipnis (1970) study. Therefore, it is conceivable that the typical penalty given a mentally ill learner would not be different in the case of a task-specific deficit versus non-task specific deficit attribution. However, the unit of measurement used in this study, which unit will be explained later, seems able to aid in the discrimination of these positions.

The way this discrimination will be affected resides in the reward-penalty structure itself under various conditions. At a face-to-face close physical distance, the task-specific deficit structure resemble the ingratiation structure of high reward, low penalty. However, at a far face-to-face personal distance, the ingratiation effect would lessen or disappear, while the task-specific deficit structure should remain intact. In the out-of-sight case, the structures supporting deindividuation and task-specific deficit should differ noticeably, so support for one position or the other would be relatively easy to demonstrate.

The unit of measurement used in the hypothesis and analysis of the data of this study was the difference of the average reward and the average penalty. A fear position would advocate ingratiation particularly at close interpersonal distance when the participants are face-to-face. This would make the average reward-penalty sum a positive

number, with more ingratiation implying a sum of greater position magnitude. On the other hand, a motivation position would not be biased in this fashion, and the unit of measurement would be more nearly zero. Whenever deindividuation would be operating, the unit of measurement becomes a negative number, with greater deindividuation implying a more negative number. Thus, comparisons should be easily made.

With these points in mind, predicting a motivational outcome in the face-to-face situation would be to endorse the null hypothesis. Therefore, hypotheses addressing the face-to-face situation have been made from the fear perspective. The hypotheses tested in this study were as follows:

Hypothesis 1. At a face-to-face close interpersonal distance when the sum of the average reward and the average penalty are compared, the sum for the mentally ill learners will be a greater positive number than that of the normal learner, when the dispensing of reward and penalty is at the discretion of a normal person.

Hypothesis 2. At a face-to-face far interpersonal distance, the sum of the average reward and average penalty will be less than that of a close interpersonal distance within the mentally ill learner conditions.

Hypothesis 3. At a face-to-face interpersonal distance, the sum of the average reward and the average penalty between normal and mentally ill learners will be less than that at a close face-to-face interpersonal distance.

Hypothesis 4. In an out-of-sight situation, the sum of the average reward and the average penalty of mentally ill learners will be a negative number of greater absolute value than that of normal learners



when the dispensing of reward and penalty is at the discretion of a normal person.

Hypothesis 5. All learners, regardless of mental status, will be treated more harshly out-of-sight than face-to-face. That is, the unit of measurement will be significantly more negative out-of-sight than face-to-face.

It is conceivable that the subject's pre-existing style could influence his behavior in the experiment. For example, a person who perceives an external locus of control might manipulate rewards and penalties from the perspective of over-estimating the effect of external stimuli. A person perceiving an internal locus of control might behave in a different fashion. To check for any systematic bias on the data, such as the one just mentioned, pre-task measures, to be explained in the following section, were administered and analyzed.

## METHOD

Subjects. The subjects for this study were 80 males enrolled during the First Summer Session, 1981, at Virginia Polytechnic Institute and State University. They ranged from 17 to 23 in age and were of all academic classes. They were paid \$3.00 each as compensation for their participation. They were recruited by means of announcements placed on campus bulletin boards and announcements made in academic classes. The sign-up sheet bore the following description:

You will be participating in an experiment method of the day-to-day world of experimental patients by teaching a learner some sets of word pairs. You will be asked to complete two questionnaires and a post-experiment evaluation of your learner's performance.

Experimental Design. The subjects were randomly assigned to the eight cells of the design, making ten subjects per cell. The three between-subjects variables of mental status of learner, distance, and sighting condition had two levels each. Since there was a repeated measure in the task, this measure of repetitions of word pairs was utilized as a within-subjects variable. The levels of the variables are explained in the following subsection.

Procedure. The subjects were told that the experiment was a model of the effect of reward and penalty upon recall. They were told that they were to help another male (a confederate) learn a list of word parts. The subjects were brought into the experimental room first. Half of the subjects then completed the Opinions about Mental Illness scale (OMI) of Cohen and Streuning (1962) and the Internal-External Locus of Control scale of Rotter (1966). Both these scales have been used extensively and are considered to be reliable and valid measures. To guard against the filling out of the scales influencing performance on the experimental task, the other half of the subjects did not fill out these scales until after completion of the experimental task. Also, the order of the scales was counterbalanced to control for any serial completion effects.

The subjects were then required to administer to a confederate a modified version of the paired-associate learning task of the Wechsler Memory Scale (Form 1) (Wechsler, 1945). The subjects were also told the supposed mental status of his learner-confederate, either normal or mentally ill, while the subject was instructed on his part of the paired-associate learning task in the following manner:

As you may know, efforts are being made not only to help mentally ill patients while they are in the hospital, but also to give them the best chance at readjustment to everyday life after they are discharged. Programs in this regard are being formulated in cooperation with local psychiatric institutions and this study is part of one such program.

You see, once released from the hospital, mental patients come back into the world of rewards and penalties of various sorts. Everything from their jobs to family life dispenses these rewards and penalties daily. Of course, this same process operates when they come into contact with strangers. This experiment is a laboratory model of that process.

In this experiment, you will be helping us find out if these different rewards and penalties affect someone's ability to remember. Your learner will be either a mentally ill volunteer who is just about to re-enter the mainstream of life, or a normal volunteer who has no history of mental illness.

You are to teach your learner to remember a list of word pairs. You will read the entire list to your learner once. Next you will read the first word of a pair. Your learner will be required to supply the proper paired word. The order in which you are to present them is on the list the experimenter will give you now. (pause) For each response, you are responsible for rewarding or penalizing your learner in the form of chips given or taken away. How many you give or take away for each word is up to you and you may change the reward or penalty as often as you wish, as long as you don't give or take away any more than five chips for any one answer. Keep track of how your learner does on the word list sheet itself. Put down whether the response was right or wrong, using R or W, and how many chips you rewarded or penalized him. When he gives the wrong answer, tell him the correct response so he might get it right the next time he needs to, since each pair will be presented three times.

Learners and teachers have been randomly assigned to one another. As I said earlier, the learners have been treated for mental illness or have never been treated for mental illness. According to the pairings, your learner is normal, that is he has no mental illness and he is participating for comparison purposes only (or- your learner has been in a mental hospital for the past several months). To avoid self-consciousness on your learner's part, we have not told your learner that you know his mental status. Of course, you need to know that information for the post-task

evaluation, but please don't tell him that you know. By the way, to make the task more interesting for your learner, each chip he gets over the initial stake will be worth a nickel, as compensation for his participation.

The extra deception of the subject contained in the instructions was included to distract the subject's attention from the actual deception being perpetrated. It was hoped that this would make the subject less likely to suspect the primary deception. In all cases, the learner was a confederate and was instructed to act the same for all subjects. The confederate was blind to what the subject had been told regarding the confederate's mental status, which is another, more practical reason for the inclusion of the extra deception.

In the experimental room, there were two fixed distances used, five feet and twelve feet. The closer distance very nearly equals the preferred distance chosen by males in Broekmann and Moeller (1973) for a "formal" interaction and according to Hall (1966) is considered a comfortable distance for social interaction. The longer distance was chosen to exceed the closer distance substantially and is a dividing line between "social" and "public" distance according to Hall (1966). Regardless of distance, the learner was always able to see his chips so that he would be constantly apprised of his progress. This was the case whether the teacher and learner could see each other or not. The same fixed distances were used when teacher and learner were out

of sight of one another, in order to have a completely crossed design.

After the teacher had been shown into the room and instructed, the "learner" was shown in and instructed as follows:

You will be required to learn some word pairs. Your teacher will read a list of word pairs to you. Then he will give you the first half of a pair and you will be required to give the correct response. If you are right, you will be rewarded with some chips, but mistakes will cause you to lose some. How many chips you gain or lose on each trial will be up to your teacher. You can watch your pile to see how you are doing. Also, if you're wrong, your teacher will tell you the correct response so you might get it right the next time he asks. Each chip you earn over the initial stake will be worth a nickel and we'll tally them after the task. This will be our way of compensating you for participating.

The experimenter left the room and the teacher conducted the experimental task.

The learner, regardless of the mental status variable, always gave the same series of responses. Together with the learner's blindness regarding what the teacher had been told about the confederate's mental status, this assured that the performance of the learner was always the same for all subjects. The stimuli were presented in three blocks of ten pairs, and the learner's performance was always six of ten pairs right, seven of ten pairs right, and seven of ten pairs right, each pair being presented once in each block of ten. The learner's in-task behavior was observed at random times to assess consistent confederate performance by the use of

a checklist of confederate behaviors, according to a script. The observation was done via one-way mirror.

At the conclusion of the task, the teacher was asked to fill out the OMI and the Rotter if he had not already done so. Finally, each teacher was asked to evaluate his learner's performance given that he "knew" of his learner (see Appendix for copies of the word list sheet and the evaluation form). Evaluation questions were answered on Likert scales.

The subject was subsequently debriefed about the study with the guidelines of Holmes (1976a,b) in mind. Subjects were given details of the deception and met the confederate. The general purpose of the study was mentioned and the subject was asked to respond with his feelings about what went on. He was also assured that his performance was typical of subjects under such experimental conditions. Finally, he was asked about any suspiciousness on his part during the actual experiment. About one week after participation, subjects were contacted to see if they had any further feelings or impressions about their experiences.

## RESULTS

This study employed a 2x2x2 (sighting condition x distance x mental status) between subjects design with a within subject repeated measure of repetitions of word pairs. The unit of measurement for all analyses of the task data was the average reward minus the average penalty, in number of chips. Means and standard deviations of the unit of measurement over the entire task are listed in Table 1.

Before addressing the analyses of the hypotheses, the scores on the Rotter and the OMI were examined to investigate equality of all groups across these measures. A separate one-way analysis of variance was done on the Rotter and on each factor of the OMI. The values of  $F_{(7,72)}$  ranged from .31 to 1.46, with none of them reaching significance. Therefore, it can be assumed that the various groups were very nearly equal on all these scores, and they would exercise no systematic effect on the other data.

In an analysis such as that done on the data of this study, planned comparisons, it is necessary that the homogeneity of variance assumption not be violated. This is important in determining the appropriate denominator for the relevant F ratios. An  $F_{\max}$  test was performed on the cell variances. The  $F_{\max}$  ratio of 8.47 did not



exceed the critical value, so it can be assumed that the cell variances are homogeneous and the residual terms over the entire design become the appropriate denominators.

Hypothesis 1 involved a planned comparison of the two groups who were face-to face at a close interpersonal distance. It was hypothesized that those confederates believed to be mentally ill would be rewarded more than those confederates believed to be normal. The analysis did not bear this out, as  $F(1,72)=.12$  was not significant. The confederates in these two conditions were treated the same regarding the magnitude of rewards and penalties. There was also no significant difference among the units of measurement over trials ( $F(2,144)=.53, p .05$ ). Table 2 contains the analysis of the data for this hypothesis.

Hypothesis 2 involved a planned comparison of the confederates perceived as mentally ill in the face-to-face condition. It was hypothesized that such learners far away would not be treated so well as those close to the teacher. The analysis of the data was significant, as  $F(1,72)=4.81, p .05$ , but the significance lay in the direction opposite of that predicted. Learners far away were treated better than those close up. There was also a significant effect for repetitions of the word pairs, as  $F(2,144)=4.46, p .05$ . Table 3 contains the analysis of the data for this hypothesis.

Hypothesis 3 involved a planned comparison of all learners in the face-to-face condition. It stated that the difference between the unit of measurement between perceived normal and perceived mentally ill learners would be less far away than when close up. That is, the hypothesis predicted a significant interaction between mental status and distance in the face-to-face condition. This did not happen, as  $F(1,72)=.09$  was not significant. There was, however, a significant effect for distance ( $F(1,72)=7.85, p .01$ ). Learners far away were treated better than those close up regardless of perceived mental status. There also was an effect for repetitions ( $F(2,144)=7.49, p .01$ ), and the three-way interaction repetitions x mental status x distance was significant ( $F(2,144)=3.42, p .05$ ).

In an attempt to explore the reason for the expected effect of the hypothesis not reaching significance, the teachers' reported levels of feelings of ease during the task were investigated. A t-test performed on the ratings of teachers in the face-to-face condition indicated that those teachers far away from the confederate felt significantly more ill at ease than teachers close up to the confederate ( $t=2.35, df=38, p .05$ ). The analysis of the data for this hypothesis is contained in Table 4.

Hypothesis 4 involved a comparison of learners in the

out-of-sight condition. It was hypothesized that learners perceived as mentally ill would be treated more harshly than those perceived as normal. The data analysis yielded the expected result as  $F(1,72)=4.47, p .05$ . Learners perceived as mentally ill were given smaller rewards and larger penalties than those perceived as normal when their teachers could not see them during the task. There was also a significant effect for repetitions ( $F(2,144)=4.47, p .05$ .) Table 5 contains the analysis of the data for this hypothesis.

Hypothesis 5 was an extension of hypothesis 4 and stated that, in general, learners out-of-sight of their teachers would be treated more harshly than those face-to-face. Analysis of the data did not reach significance as  $F(1,72)=1.55, p .05$ . Again, there was a significant effect for repetitions ( $F(2,144)=30.79, p .001$ ). The analysis of the data for this hypothesis is contained in Table 6.

An overall analysis of variance was performed on the data to acquire the residual terms. There was a main effect for distance ( $F(1,72)=4.69, p .05$ ), a main effect for repetitions of pairs ( $F(2,144)=30.79, p .001$ ), and a significant interaction of sighting condition x mental status ( $F(1,72)=5.60, p .05$ ). This analysis is contained in Table 7.

In an effort to shed light upon the main effect for repetitions, the strongest effect in the design, a Duncan's multiple range test was performed on the repetitions data. The results indicated that the first presentation of a word pair was significantly rewarded more and penalized less at the .05 level than either of the subsequent presentations, which were not significantly different from each other. This pattern seemed to be consistent across almost the entire design. The results of this analysis are contained in Table 8.

TABLE 1  
Means and Standard Deviations  
of Units of Measurement (in chips) by Groups

Face-to-Face							
Close				Far			
Normal		Mentally Ill		Normal		Mentally Ill	
Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
.37	.80	.66	.83	1.24	1.36	1.69	1.95

Out-of-Sight							
Close				Far			
Normal		Mentally Ill		Normal		Mentally Ill	
Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
.98	1.14	.17	.76	.97	.75	.26	.67

TABLE 2

Analysis of Variance for the Effect of  
Mental Status at a Face-to-Face  
Close Interpersonal Distance

Source	SS	df	MS	<u>F</u>	<u>p</u>
Mental Status	.42	1	.42	.12	n.s.
Residual (between)	253.49	72	3.52	--	--
Repetitions	.49	2	.25	.53	n.s.
Repetitions x Mental Status	1.81	2	.91	1.94	n.s.
Residual (within)	67.03	144	.47	--	--

TABLE 3

Analysis of Variance for the Effect of Distance  
for Teachers of Mentally Ill Confederates,  
in the Face-to-Face Condition

Source	SS	df	MS	<u>F</u>	<u>p</u>
Distance	16.94	1	16.94	4.81	<.05
Residual (between)	253.49	72	3.52	--	--
Repetitions	4.10	2	2.10	4.46	<.05
Repetitions x Distance	1.84	2	.92	1.96	n.s.
Residual (within)	67.03	144	.47	--	--

TABLE 4

Analysis of Variance for the Effect of Mental Status and Distance in the Face-to-Face Condition

Status	SS	df	MS	F	p
Mental Status	3.80	1	3.80	1.08	n.s.
Distance	27.62	1	27.62	7.85	<.01
Mental Status x Distance	.32	1	.32	.09	n.s.
Residual (between)	253.49	72	3.52	--	--
Repetitions	7.04	2	3.52	7.49	<.01
Repetitions x Mental Status	.22	2	.11	.23	n.s.
Repetitions x Distance	.15	2	.08	.17	n.s.
Repetitions x Mental Status x Distance	3.22	2	1.61	3.42	<.05
Residual (within)	67.03	144	.47	--	--

Self-Report of Feelings of Ease During Task;  
All Teachers, Face-to-Face

	Mean	df	t	p
Close	4.8			
Far	4.0	38	2.35	<.05



TABLE 5

Analysis of Variance for the Effect of  
Mental Status in the Out-of-Sight Condition

Source	SS	df	MS	F	p
Mental Status	15.74	1	15.74	4.47	<.05
Residual (between)	253.49	72	3.52	--	--
Repetitions	19.6	2	9.8	20.85	<.001
Repetitions x Mental Status	.32	2	.16	.34	n.s.
Residual (within)	67.03	144	.47	--	--

TABLE 6

Analysis of Variance for the  
Effect of the Sighting Variable

Source	SS	df	MS	<u>F</u>	<u>p</u>
Sighting	5.47	1	5.47	1.55	n.s.
Residual (between)	253.47	72	3.52	--	--
Repetitions	28.67	2	14.34	30.79	<.001
Repetitions x Sighting	2.57	2	1.29	2.73	n.s.
Residual (within)	67.03	144	.47	--	--

TABLE 7

Analysis of Variance of the Effect of  
Mental Status, Distance, and Sighting

Source	SS	df	MS	F	p
Sighting	4.52	1	4.52	1.28	n.s.
Distance	16.50	1	16.50	4.69	<.05
Mental Status	2.83	1	2.83	0.80	n.s.
Sighting x Distance	11.36	1	11.36	3.23	n.s.
Sighting x Mental Status	19.72	1	19.72	5.60	<.05
Distance x Mental Status	0.01	1	0.01	0.003	n.s.
Sighting x Distance x Mental Status	0.83	1	0.83	0.24	n.s.
Residual (between)	253.49	72	3.52	--	--
Repetitions	28.66	2	14.33	30.79	<.001
Repetitions x Sighting	2.57	2	1.29	2.76	n.s.
Repetitions x Distance	0.34	2	0.17	0.37	n.s.
Repetitions x Mental Status	0.32	2	0.16	0.34	n.s.
Repetitions x Sighting x Distance	0.56	2	0.28	0.60	n.s.
Repetitions x Sighting x Mental Status	0.17	2	0.09	0.18	n.s.
Repetitions x Distance x Mental Status	0.93	2	0.47	1.00	n.s.
Repetitions x Sighting x Distance x Mental Status	2.19	2	1.10	2.36	n.s.
Residual (within)	67.03	144	0.47	--	--
TOTAL	412.03	239	--	--	--

TABLE 8

Duncan's Multiple Range Test  
For the Effect of Repetitions

REPETITION	GROUPING	MEAN	ALPHA
1	A	1.29	.05
2	B	0.69	n.s.
3	B	0.47	n.s.

Grouping A is significantly different from Grouping B.

## DISCUSSION

This study attempted to look at interactions between individuals in a teacher-learner situation, where teachers had control of the reward-penalty structure. The teachers were college student volunteers, while the learner was a confederate, thought by the teacher to be normal or mentally ill. Other factors manipulated were those of distance and the ability of the participants to see one another during the experimental paired-associate learning task. It was expected that mentally ill learners would elicit ingratiating responses (high reward, low penalty) when face-to-face, especially when close to the teacher. In out-of sight conditions, it was expected that mentally ill learners would be treated more harshly than the normal learners. The analysis of the data revealed some hopeful and interesting results. Each hypothesis will be discussed in turn.

The first hypothesis predicted that mentally ill learners would be treated better than normal learners in face-to-face, close up encounters. Data analysis showed no difference between the teachers of normal learners and mentally ill learners under this condition. In other words, learners were treated the same by their teachers regardless of the learners' perceived mental status. Such results can be accounted for in terms of the subject population or in terms of the experimental setting.

In terms of population, the subjects used were college students. Such a population tends to be more intelligent and liberal than the general population. They generally tend to endorse new ideas to a greater degree (Olmstead and Durham, 1976) and are in an atmosphere where their ability to think is encouraged. Under such conditions, it seems reasonable that they would be more likely to view mental illness in terms of, for instance, a medical model, which is growing in acceptance across the population, replacing such etiological explanations as moral degradation, a shift which has been linked to the possibility of improved behavior toward the mentally ill (Rabkin, 1974). Such views do not consider the mentally ill as inherently different, but as individuals who happen to have a mental illness. In fact, even several years ago Hare-Mustin and Gervine (1974) found evidence for the endorsement of an interpersonal etiology view among college students. Their behavior in the experimental circumstances may simply bear out their attitudes. The relative level of psychological sophistication of college students may have also played a role. During the debriefing of the subjects, a fair number of them stated that what they were trying to do by their reward and penalty manipulation was to apply principles of learning they had been exposed to in various psychology courses they had taken. They were conversant with ideas regarding the efficacy of reward versus penalty

as well as wanting to set up an atmosphere conducive to learning. They seemed to feel that setting up a generally positive structure would facilitate learning by motivating their learners to learn. Again, however, the attitude comes through of treating all learners alike, regardless of perceived mental status. What seemed important to the teacher was getting his learner to do well, not what the learner's supposed psychiatric history was.

One other characteristic of the subject population that deserves mention is that these subjects were students during a Summer Session. Such students are of two types: those trying to accelerate their progress and those trying to remediate deficiencies. In a sense, this population may represent the extremes of a distribution, and their responses could conceivably be atypical. This is unknown and no attempt was made to assess this.

In terms of the experimental setting, it might be argued that the situation and the location of the study may have led to the subjects' feeling a sense of implausibility toward the situation. It is possible that the subjects suspected the deception, that it was they who were being tested, not the learner. Many of the subjects had been in psychology experiments before, so they may have been expecting a "hook" somewhere. Some had had experience with confederates as well. Under such conditions, it is not unreasonable to wonder whether any results could be considered valid.

Subjects were questioned after they had completed their participation about whether they had suspected any deception. Surprisingly, very few voiced any suspicion. One mentioned he was certain that his learner was a confederate, but tried not to let that influence him. His performance was typical of subjects in his experimental condition, so he either was quite impartial or was trying to save face. Several others were concerned over the presence of the one-way mirror in the room, which mirror was used to observe the confederate. However, they reported losing their self-consciousness after a few moments and before the actual task. The great majority of subjects became involved in doing an adequate job while participating and were convinced of the legitimacy of the study.

Having the study conducted in the academic department rather than in some psychiatric facility also did not seem to exercise any tendency to make subjects doubt the study's plausibility. Subjects on occasion during the debriefing would mention that they thought about their learner's being in an academic setting. In no case did it seem implausible to them, however, to have such a situation present itself.

One effect that seems curious is that the effect for the repetition of the word pairs, an effect which was significant over most of the design, was not significant in the cells compared in this hypothesis. The combination of



levels of the between-subjects variables occurring in these cells may have eliminated this effect. This idea will be discussed in the section dealing with the third hypothesis.

The second hypothesis predicted that mentally ill learners close up would be treated better than those far away, in the face-to-face condition. This was not borne out by the data. It might be assumed then that, again, the perceived mental status was not important, as proximity did not elicit ingratiation responses by the teachers to those learners who were perceived as mentally ill and physically close to the teacher. However, the analysis did reach statistical significance in the direction opposite that predicted by the hypothesis. Mentally ill learners far away tended to be treated better than those close up. This result did not conform with what would be expected from implications of the previous literature in the area of attitudes toward mental illness. However, looked at from a different perspective, the results here coupled with those of the next hypothesis, seem to serve as further verification for the fact that the mentally ill learners were perceived as no different qualitatively than the normal learners when face-to-face with their teachers. The discussion of this different perspective is contained in the section dealing with the next hypothesis.

The main effect for repetitions of the word pairs is a consistent one. The general pattern of this effect seems to

lie in the tendency of teachers to reward more heavily and penalize more lightly on the first trial of the pairs. On subsequent presentations, the reward and penalty tended to become more equal. Evidently the teachers felt that with practice the learners should improve in their performance, so rewards were not so heavily weighted as on the first trial.

The third hypothesis predicted that there would be an interaction in the face-to-face condition between mental status of learner and distance. This interaction was not significant. In fact, the analysis showed a main effect for distance only, that is, learners far away were treated better on the whole than those close up. This was not at all expected, as ingratiation toward close up mentally ill learners was expected to cause this interaction to take place. However, this ingratiation response did not happen. Nonetheless, it was not expected that distance was going to have such an effect. Subsequent analysis also revealed that teachers in the face-to-face condition reported feeling more ill at ease when their learners were far away than when they were close up. Clearly, it seems that the distance factor was having an effect on the teacher.

An explanation of this unexpected result seems to come from the affiliative conflict theory of Argyle and Dean (1965). This theory states that there exists a state of equilibrium for intimacy in any interpersonal contact. This equilibrium is maintained by the participants by modifying the various

aspects of the interaction. For instance, if the participants are brought closer together, some other variables, such as eye contact or intimacy of conversation topic will be reduced. Conversely, as distance increased, Argyle and Dean (1965) found that, for instance, eye contact increased. So a less intimate distance resulted in a more intimate level of eye contact, maintaining equilibrium. The same was true for verbal variables, such as intimacy of topic of conversation. This theory has been refined and the extent of its applicability investigated through the years. For example, Jourard and Friedman (1970) found the effect to be greater and more robust between strangers. The same effects have been noticed in crowds (Greenberg, 1977), in situations involving physical contact (Kleinke, 1977), in verbal interchanges (Archer, 1978), and in general personal interactions (Patterson, Mullins, and Romano, 1971). Curiously, the effect is not nearly as strong in children (e.g., Russo, 1975). But, as Patterson (1976) stated, "There is just too much supportive evidence to deny the operation of the predicted compensatory process under many conditions."

There do seem to be mitigating factors in this effect. Tedesco and Fromme (1974) found that in cooperative situations, attempts are made to increase intimacy and reduce personal space. Interpreted into the present study, the demand characteristics of fixed seating distances may have resulted in an

even more urgent need to increase intimacy, to bring about the desired equilibrium, particularly in the case when the learner was far away. It seems reasonable to suppose that using the chips, the most salient stimulus in the study, to induce this intimacy, accounts for the teachers' behavior. This notion may also be used to explain the lack of an effect for repetitions in the face-to-face close conditions. Intimacy in these conditions may have been at a high enough level that teachers did not over-reward their learners on the first trial as was done in other cases. This would explain the lack of a main effect for repetitions in the analysis of the data for the first hypothesis.

However, there was a main effect for repetitions over the data analyzed in this hypothesis. It seems that the first repetition far away was heavily rewarded, while close up it was not rewarded heavily enough to create significance in the close up case. Overall though the effect for repetitions help up in this hypothesis. The three-way interaction (repetitions x distance x status) was also significant. This seems to underline the explanation given immediately above regarding the pattern of reward on the first trial of the word pairs.

Patterson (1976) states that in a situation where a person feels awkward, positive behaviors increase to bring the interaction to an acceptable level of intimacy, serving to maximize one's comfort or satisfaction in an interaction.

The self-report feelings of the teachers in the face-to-face situation fit well with this idea, and this further increases the distant teacher's desire to increase intimacy. Being confronted with a neutral confederate, the onus was on the teacher to increase the intimacy level to one the teacher found acceptable. Again, the most reasonable choice of instrument was the reward-penalty structure. Unfortunately, there does not seem to be a study that addresses the question of an intimacy equilibrium vis-a-vis reward and penalty. It would be extremely interesting to see if such research would replicate the finding that surfaced in the present study.

All of the above, however, seems to underline the non-significant effect of the perceived mental status of the learner had on the teacher in the face-to-face conditions. The mentally ill learners were treated so like normal learners that an intimacy equilibrium was brought into play, an intimacy equilibrium resembling that of normals interacting with other normal strangers. This corroborated the results of the other hypothesis involving face-to-face conditions.

The fourth hypothesis predicted that mentally ill learners would be treated more harshly than normal learners in out-of-sight conditions. Analysis of the data supported this contention. Evidently, the lack of a face-to-face contact had a deleterious effect upon the reward-penalty structure for mentally ill learners. Previous research has also borne this out (e.g., Farina, et al., 1976). However, face-to-

face encounters like those of this study have not been done, so it is unknown whether the pattern of results found in this study, of no differences face-to-face with differences out-of-sight, is the rule or the exception. Population is not a factor here, as Farina, et al. (1976) utilized college students as well. The phenomenon of deindividuation (Zimbardo, 1972) may be operating here on the teacher, as given the lack of information about the learner, outside of his supposed mental status, subjects evidently made inferences regarding their learners. Not being able to see their learners deprived teachers in the out-of-sight conditions of any other information. In light of this, it would seem that teachers reacted only to labels of normal versus mentally ill, with the results found. Kleck, et al. (1968) also demonstrated similar findings. It is interesting to note that the additional input of being able to see his mentally ill learner eradicated the overly negative frame found in teachers in the out-of-sight, mentally ill learner condition. An extension of this idea of deindividuation was explored in the fifth hypothesis.

Here also there was a significant effect for repetitions. It seems that in out-of-sight cases, the same general pattern over repetitions evidenced itself. However, it seems that when the teacher and the learner could not see each other the entire structure was displaced downward, toward a negative unit of measurement. It also seems that there was a

tendency for the pattern to fall off more rapidly, with even a greater tendency to penalize on the third repetition of the word pairs. This downward displacement seemed to be the case particularly for the mentally ill learners.

The fifth hypothesis predicted a generally more negative treatment of learners in out-of-sight conditions than those in face-to-face conditions. Analysis of this hypothesis did not reach significance, but demonstrated a trend in the predicted direction. This trend was probably due mainly to the negative treatment of the mentally ill learners, but visual inspection of the data indicates that normal learners were treated slightly worse overall out-of-sight than face-to-face. It is possible that the arrangement of the experimental room could have influenced the outcome of this hypothesis. The task took place within the confines of a single room. Sighting conditions were effected by the placement of a temporary barrier which prevented the learner and teacher from seeing one another. It may be that the temporariness of the barrier brought about a generally decreased sense of deindividuation of the learner by the teacher while maintaining the relative magnitude of the effect between the two mental statuses. In such a case, it would be possible still to have a deindividuation effect strong enough to penalize the mentally ill learner while diffusing the effect toward the normal learner. However, this explanation must be viewed as conjecture, because while most deindividuation studies utilized a more permanent barrier, such as two different rooms, Zimbardo's

prison study, for example, did not (Zimbardo, 1972). Even here, though, there is a difference involving a competitive situation in the Zimbardo study versus a cooperative situation in the present study.

In this case as well, there was a main effect for repetitions. This shows once again that the pattern of over-reward on the first trial holds almost universally in the design, the only difference being a downward displacement of the entire pattern out-of-sight versus face-to-face.

In general, the present study lends support to the idea that in a face-to-face situation, persons perceived as mentally ill are not treated any differently by college students than are persons perceived as normal. However, the generalizability of these results is open to question. Most importantly, it would seem ill-advised to generalize beyond a college population. The general population tends to lag behind college students in the adoption of progressive ideas. There are variables such as age, socio-economic status, and educational level which are different in a readily apparent manner in college students versus a sample of the general population. Also, the experimental situation itself may have altered the subject that some aspects of the interaction, notably the rewards and penalties, were to be evaluated in some fashion. This heightened awareness could put the subject "on guard" regarding his behavior, making him attend to the task at hand. The result of this might be an overly-cautious



handling of an ambiguous situation. It seems though, that the subjects were very willing to remain within the confines of the situation, utilizing components of the interaction, such as the reward-penalty structure itself, to cope with any undesirable feelings. An example of this use of the reward-penalty structure to cope with uneasiness became evident in the case of subjects in the face-to-face, distant conditions. It seems apparent that these subjects were able to make use of the freedom they had to establish rewards and penalties to bring the interaction to an acceptable level of intimacy.

At the time of the design of this study, provisions were made to contact subjects after their participating to investigate whether any negative reactions to the manipulation had arisen, and to deal with them if they had. No evidence of this was found. Evidently, the procedure was innocuous enough in their eyes not to give rise to feelings of concern over their behavior. In fact, many had to be reminded about the content of the study. Nonetheless, some subjects did have questions about the study which occurred to them after they had left the debriefing. These questions were answered at the time of the follow-up.

There are several ways in which future studies of this type could improve or enhance the findings of the present study. Literature in this area involving females is scant and should be bolstered. No modifications would be required in the present design if females were used, and would allow

a direct comparison of trends between the sexes. Of particular interest would be out-of-sight conditions, as what literature there is in the area suggests that females are kinder than males to someone they believe to be mentally ill (Farina, 1980). Previous research involving cross-sex pairs is even less available than that on females. Investigation of the interactions involving the variable of sex of the participants would be enlightening. Whether a male teacher would treat his learner more harshly out-of-sight if she were female would be one of the central questions. Analogous situations would pose questions regarding the female teachers and male learners. Farina, Murray, and Groh (1978) suggest that female ex-patients would be more accepted by males than male ex-patients. Face-to-face, Argyle and Dean (1965), for example, found the intimacy equilibrium effects were enhanced in cross-sex pairs. This has obvious implications for that part of this design.

It is difficult to say whether task-specific deficit considerations entered into subjects' judgments in this study. No specific attempts were made to ascertain its importance, but, by implication, subjects felt that their learners did about as well as people in general would do on the experimental task, regardless of the mental status variable. This is slim evidence that the consideration of task-specific deficits entered subjects' thinking. Future studies may be able to tease out these effects by utilizing a less cognitively demanding interaction. Removal of some of the

pressure for the learner to perform mentally could do away with the task-specific deficit quandry in which some teachers would put themselves.

Perhaps the greatest direction for future research to pursue is that of characteristics of the participants. Some investigations have been done in this regard (e.g., Hood, 1973; Lieberman, 1970; Leimkuhler and Ziegler, 1978), but the area is still obscure. This study seems to indicate that even a felt need for intimacy may affect behavior in a given situation. While the groups of subjects in this study were not found to differ in some aspects after assignment to groups, assigning subjects to groups based on performance on some measure may affect the outcome of a study with a paradigm similar to that used in the present one. Once again, the sentiments of Pollack, et al. (1976) come to mind, pointing out the complexity and individuality of the stigma phenomenon. Personality traits, state anxiety, need for achievement, or need for approval are possible areas that could lead to fruitful investigation. Rabkin (1980) feels that situational factors may also influence reactions toward the mentally ill, which is another area needing more experimental investigation.

Considering the great number of factors which could conceivably influence stigma and interactions with those perceived as mentally ill, it might be asked whether there is any hope of ever improving or eradicating the situation. Two approaches seem to have been successful to some extent with

some portion of the general public in lessening the reaction to those perceived as mentally ill. The first of these involves enforced social contact and physical proximity to the mentally ill. Such a situation presents itself to some college students in the form of a course requirement. Usually this entails spending a predetermined amount of time in an institution interaction socially with the mentally ill (e.g., Kulik, et al., 1969). Students involved in such experiences generally manifest more tolerance and positive feeling toward the mentally ill than before. These differences have been maintained over a modest several month follow-up period (Keith-Spiegel and Spiegel, 1970). A study of a non-college population by Trute and Loewen (1978) evidenced similar results. This sort of hands-on experience seems to be good for those who take part, but is impractical for the general population.

The second approach is an interesting attempt to change attitudes toward the mentally ill in an intensive, one-shot information seminar. This is the "demythologizing seminar" approach (Morrison and Bulier, 1975; Morrison and Nevid, 1976; Morrison, 1977; Morrison and Teta, 1980). The Morrison approach centers around exposition of the psychosocial etiology model of mental illness. Given the comparatively short length of time of the seminar (several hours), the results are impressive and have been maintained over follow-up periods of eight

months. This seems to be a highly effective approach that has worked with a variety of groups directly or indirectly connected with the mentally ill. However, Rabkin (1980) doubts that reservations about mental illness and proximity of the mentally ill will ever disappear. She cites four general considerations for the propagation of such reservations: the money spent annually to keep the mentally ill in hospitals, etc., the increased visibility to mannerism and dress of the chronically mentally ill, the fact that no group is universally accepted in society, and the degree of tolerance for any type of deviance in relation to the acceptance of the mentally ill. She does feel, however, that by appeals to the general public's enlightened self-interest, at least tolerance can be won. The Morrison approach may be instrumental in bringing that about.

It is hoped that by the study of interactions between normals and the mentally ill, relevant characteristics of the participants and of the interaction itself can lead to a better understanding of the perception of the mentally ill by normals. Through such an understanding, public education programs could be designed to go about bringing acceptance of the mentally ill to a higher level.

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## APPENDIX

This appendix contains the forms utilized in this study.

They are arranged in the following order:

- 1) Rotter Internal-External Locus-of-Control Scale (Rotter, 1966)
- 2) Opinions about Mental Illness Scale (OMI) (Cohen and Streuning, 1962)
- 3) Word-pair list used by the teacher during the experimental task
- 4) Post-task evaluation form used by the teacher to rate his learner's performance

LEARNER NUMBER \_\_\_\_\_

## PERSONAL BELIEF SURVEY

This is a questionnaire to find out the way in which certain events in our society affect different people. Each item consists of a pair of alternates numbered 1 or 2. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief; obviously there are no right or wrong answers. Please answer these items carefully, but do not spend too much time on any one item. Be sure to find an answer for every choice. Your answers to the items on this inventory are to be recorded on a separate answer sheet. Find the number of the item on the answer sheet and indicate your choice of the "1" or "2" statement beside the appropriate item number on the answer sheet. In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices. REMEMBER, select that alternative which you personally believe to be more true.

I more strongly believe that:

1. 1. Children get into trouble because their parents punish them too much.  
2. The trouble with most children nowadays is that their parents are too easy with them.
2. 1. Many of the unhappy things in people's lives are partly due to bad luck.  
2. People's misfortunes result from mistakes they make.
3. 1. One of the major reasons why we have wars is because people don't take enough interest in politics.  
2. There will always be wars, no matter how hard people try to prevent them.
4. 1. In the long run, people get the respect they deserve in this world.  
2. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5. 1. The idea that teachers are unfair to students is nonsense.  
2. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6. 1. Without the right breaks one cannot be an effective leader.  
2. Capable people who fail to become leaders have not taken advantage of their opportunities.
7. 1. No matter how hard you try, some people just don't like you.  
2. People who can't get others to like them, don't understand how to get along with others.
8. 1. Heredity plays the major role in determining one's personality.  
2. It is one's experiences in life which determine what they're like.
9. 1. I have often found that what is going to happen will happen.  
2. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. 1. In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.  
2. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11.
  1. Becoming a success is a matter of hard work; luck has little or nothing to do with it.
  2. Getting a good job depends mainly on being in the right place at the right time.
12.
  1. The average citizen can have an influence in government decisions.
  2. This world is run by the few people in power, and there is not much the little guy can do about it.
13.
  1. When I make plans, I am almost certain that I can make them work.
  2. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14.
  1. There are certain people who are just no good.
  2. There is some good in everybody.
15.
  1. In my case, getting what I want has little or nothing to do with luck.
  2. Many times we might just as well decide what to do by flipping a coin.
16.
  1. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
  2. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.
17.
  1. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
  2. By taking an active part in political and social affairs the people can control world events.
18.
  1. Most people don't realize the extent to which their lives are controlled by accidental happenings.
  2. There really is no such thing as "luck".
19.
  1. One should always be willing to admit his mistakes.
  2. It is usually best to cover up one's mistakes.
20.
  1. It is hard to know whether or not a person really likes you.
  2. How many friends you have depends upon how nice a person you are.
21.
  1. In the long run, the bad things that happen to us are balanced by the good things.
  2. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
22.
  1. With enough effort we can wipe out political corruption..
  2. It is difficult for people to have much control over the things politicians do in office.
23.
  1. Sometimes I can't understand how teachers arrive at the grades they give.
  2. There is a direct connection between how hard I study and the grade I get.
24.
  1. A good leader expects people to decide for themselves what they should do.
  2. A good leader makes it clear to everybody what their jobs are.
25.
  1. Many times I feel that I have little influence over the things that happen to me.
  2. It is impossible for me to believe that chance or luck plays an important role in my life.



26.
  1. People are lonely because they don't try to be friendly.
  2. There's not much use in trying too hard to please people; if they like you, they like you.
27.
  1. There is too much emphasis on athletics in high school.
  2. Team sports are an excellent way to build character.
28.
  1. What happens to me is my own doing.
  2. Sometimes I feel that I don't have enough control over the direction my life is taking.
29.
  1. Most of the time I can't understand why politicians behave the way they do.
  2. In the long run the people are responsible for bad government on a national as well as on a local level.

Learner number \_\_\_\_\_

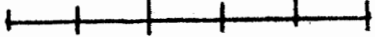

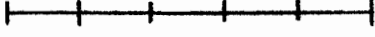
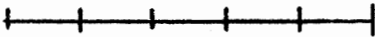
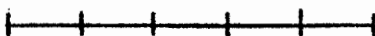










strongly disagree

strongly agree

- 1. If parents loved their children more, there would be less mental illness. |-----|
- 2. One of the main causes of mental illness is a lack of moral strength or will power. |-----|
- 3. Mental patients come from homes where the parents took little interest in their children. |-----|
- 4. Although they aren't usually aware of it, many people become mentally ill to avoid the difficult problems of everyday life. |-----|
- 5. People who are mentally ill let their emotions control them; normal people think things out. |-----|
- 6. If the children of mentally ill parents were raised by normal parents, they would probably not become mentally ill. |-----|
- 7. When a person has a problem or worry, it is best not to think about it, but keep busy with more pleasant things. |-----|
- 8. Nervous breakdowns usually result when people work too hard. |-----|
- 9. The patients of a mental hospital should have something to say about the way the hospital is run. |-----|
- 10. Mental illness is usually caused by some disease of the nervous system. |-----|
- 11. All patients in a mental hospital should be prevented from having children by a painless operation. |-----|
- 12. The small children of patients in mental hospitals should not be allowed to visit them. |-----|
- 13. Mental illness is an illness like any other. |-----|
- 14. It is easy to recognize someone who once had a serious mental illness. |-----|
- 15. Most mental patients are willing to work. |-----|
- 16. There is something about mental patients that makes it easy to tell them from normal people. |-----|


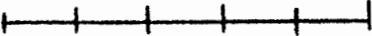
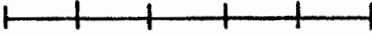

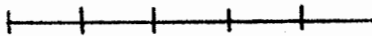
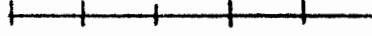
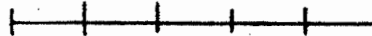
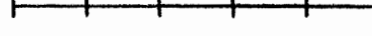







Learner number \_\_\_\_\_

strongly  
disagreestrongly  
agree

17. If people would talk less and work more, everybody would be better off. 
18. Even though patients in mental hospitals behave in funny ways, it is wrong to laugh about them. 
19. People with mental illness should never be treated in the same hospital as people with physical illness. 
20. To become a patient in a mental hospital is to become a failure in life. 
21. If the children of normal parents were raised by mentally ill parents, they would probably become mentally ill. 
22. A heart patient has just one thing wrong with him, while a mentally ill person is completely different from other patients. 
23. Patients in mental hospitals are in many ways like children. 
24. More tax money should be spent in the care and treatment of people with severe mental illness. 
25. A woman would be foolish to marry a man who has had a severe mental illness, even though he seems fully recovered. 
26. Our mental hospitals seem more like prisons than like places where mentally ill people can be cared for. 
27. People who have been patients in a mental hospital will never be their old selves again. 
28. If our hospitals had enough well-trained doctors, nurses, and aides, many of the patients would get well enough to live outside the hospital. 
29. The law should allow a woman to divorce her husband as soon as he has been confined in a mental hospital with a severe mental illness. 
30. The best way to handle patients in mental hospitals is to keep them behind locked doors. 
31. The death penalty is inhuman and should be abolished. 

Learner number \_\_\_\_\_

strongly  
disagreestrongly  
agree

32. Although patients discharged from mental hospitals may seem all right, they should not be allowed to marry. 
33. Many mental patients are capable of skilled labor, even though in some ways they are very disturbed mentally. 
34. There is little that can be done for patients in a mental hospital except to see that they are comfortable and well fed. 
35. Many mental patients would remain in the hospital until they were well, even if the doors were unlocked. 
36. Every mental hospital should be surrounded by a high fence and guards. 
37. The mental illness of many people is caused by the separation or divorce of their parents during childhood. 
38. Every person should make a strong attempt to raise his social position. 
39. Most women who were once patients in a mental hospital could be trusted as baby sitters. 
40. Anyone who tries hard to better himself deserves the respect of others. 
41. Most patients in mental hospitals don't care how they look. 
42. Obedience and respect for authority are the most important virtues children should learn. 
43. Many people who have never been patients in a mental hospital are more mentally ill than many hospitalized mental patients. 
44. People who are successful in their work seldom become mentally ill. 
45. There is hardly anything lower than a person who doesn't feel a great love, gratitude, and respect for his parents. 
46. Although some mental patients seem all right, it is dangerous to forget for a moment that they are mentally ill. 

LEARNER NUMBER \_\_\_\_\_

**WORD PAIRS:**

metal-iron	rose-flower
baby-cries	up-down
crush-dark	obey-inch
north-south	fruit-apple
school-grocery	cabbage-pen

**TEACHER: REMEMBER, IF YOUR LEARNER MISSES A RESPONSE, CORRECT HIM BY TELLING HIM THE RIGHT RESPONSE BEFORE YOU GO ON.**

test word	correct response	R or W	amount	test word	correct response	R or W	amount
NORTH	south			ROSE	flower		
FRUIT	apple			OBEY	inch		
OBEY	inch			FRUIT	apple		
ROSE	flower			CRUSH	dark		
BABY	cries			NORTH	south		
UP	down			OBEY	inch		
CABBAGE	pen			FRUIT	apple		
METAL	iron			BABY	cries		
SCHOOL	grocery			METAL	iron		
CRUSH	dark			CRUSH	dark		
CABBAGE	pen			SCHOOL	grocery		
BABY	cries			ROSE	flower		
METAL	iron			NORTH	south		
SCHOOL	grocery			CABBAGE	pen		
UP	down			UP	down		

Learner number \_\_\_\_\_

Did you find yourself moving your chair closer or farther from your learner?

much closer |-----| much farther

How did you feel about the distance between you and your learner?

too close |-----| too far

How much closer or farther from him would you have preferred to sit? \_\_\_\_\_

How well do you think your learner did on this task compared to how you think people in general would do? much better |-----| much worse

Do you think that the performance of your learner on the task was better or worse than the typical person of your learner's mental status?

much better |-----| much worse

How would you assess your learner's motivation to learn the word pairs?

low |-----| high

Do you think your learner tried very hard to learn?

not at all |-----| very hard

How great an effect do you think your rewards and penalties had on your learner's performance? very little |-----| very much

How much like you, in general, would you say your learner was?

very much |-----| very little

How did you feel while conducting the task? ill at ease |-----| much at ease

If you'd had more time, would you like to have gotten to know your learner better? \_\_\_\_\_

How would you rate your learner on the following continua? (your intuitive feel)

friendly	-----	unfriendly
anxious	-----	calm
dangerous	-----	harmless
predictable	-----	unpredictable
dull	-----	smart
attentive	-----	distractable

Has there ever been any serious mental illness in your family? (optional - any information will, of course, be kept strictly confidential)

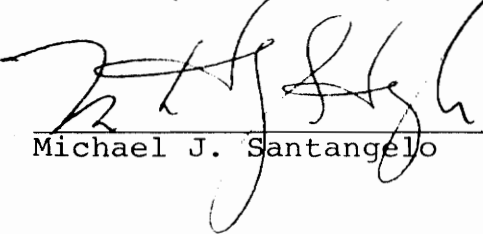
## VITA

Michael J. Santangelo was born April 20, 1950, in Philadelphia, Pennsylvania. After graduation from Bishop Egan High School in Fairless Hills, Pennsylvania, he attended Virginia Polytechnic Institute in Blacksburg, Virginia, earning a Bachelor of Science degree in Mathematics. He married the former Patricia A. Power in June, 1972, and they had a son in May, 1977. He received his Master of Science degree in Psychology in March, 1977, from Virginia Polytechnic Institute and State University.

He has had practicum experience with the Partial Hospitalization Unit of Roanoke Valley Mental Health Services in Roanoke, Virginia, the University Counseling Services of Virginia Polytechnic Institute and State University, and the Psychological Services Center of the Psychology Department at his university. During the entirety of his graduate career prior to internship, he worked full-time as a Data Entry Operator A for the Virginia Extension Service on campus.

From August, 1980, to August, 1981, he served as an intern in clinical psychology at Malcolm Bliss Mental Health Center in St. Louis, Missouri. He received his Doctor of Philosophy degree from Virginia Polytechnic Institute and State University in December, 1981, and

is currently employed as Chief Psychologist at the  
Great River Mental Health Center, Muscatine, Iowa.



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Michael J. Santangelo



THE EFFECT OF SIGHTING, DISTANCE  
AND PERCEIVED MENTAL STATUS ON  
THE ALLOCATION OF REWARDS AND PENALTIES

by

Michael Joseph Santangelo

(ABSTRACT)

Over the past several decades, attempts have been made both to measure and to change attitudes toward the mentally ill. Early studies which measured such attitudes found that the general public considered the mentally ill to be morally degenerate, dirty, and dangerous. As time went on, public attitudes evolved into looking at mental illness in terms of a medical model, viewing mental illness as an illness like any other. This is the point at which the general public is now. It seems to be the opinion of some of the reviewers that such an evolution of views would bring about more accepting behaviors. Previous behaviorally-oriented research has not shown this to be the case. It is conceivable that as public attitudes evolve to a more interpersonally-oriented view, behavioral acceptance would also increase.

Shortcomings in previous research included the lack of a face-to-face interaction between normals and the mentally ill, and attention to such details of the interaction as physical proximity. The present study investigated whether

such conditions as being able to see someone one interacts with, and how far away that person is, make any difference in the way rewards and penalties are meted out, particularly if one of the participants is seen as mentally ill by the other. It was expected that when face-to-face and close to one another, a normal teacher would over-reward someone thought to be mentally ill. This response, hypothesized to arise out of a normal person's apprehension regarding the mentally ill, was expected to lessen as distance increased. It was also expected that when out-of-sight, learners would be penalized more heavily than learners face-to-face. This would particularly be the case when the learners was perceived as mentally ill.

The experimental task involved a college student volunteer acting as a teacher to a confederate who was presented as either normal or mentally ill. Other variables were physical proximity and the ability of the participants to see one another. The teacher was required to administer a paired-associate learning task to the learner. Control, within limits, of the amount of reward or penalty in tokens, meted out for responses was entirely the teacher's. After the task, the teacher was required to complete an evaluation questionnaire on the learner.

Results were surprising. The expected over-reward of the mentally ill learner when close and face-to-face did not materialize. In fact, it was found that learners face-to-face and far away were rewarded a greater amount and pena-

lized less than those close. It seems that an attempt was made by these face-to-face, far away teachers to bring about an intimacy equilibrium, compensating for what seemed to be an uncomfortably great interpersonal distance. This was the case regardless of the perceived mental status of the learner, evidencing no differential treatment of the learner if he was presented as mentally ill. Out-of-sight predictions, however, were borne out. Implications of the data were mentioned. Possibilities of the direction in attitudes toward the mentally ill were explored, with two successful attitude change programs detailed.