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THE DIFFERENCE BETWEEN MACHIAVELLIANISM AND PROGNOSIS
IN MENTAL PATIENTS AND PRISON INMATES

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CHAPTER I

INTRODUCTION

In the past thirty years the treatment of both prison inmates and mental hospital patients has been changing rapidly. Such changes have had an effect on all institutions, clients, and professionals involved. As a result of these changes closer interaction between institutional groups on all levels has occurred.

In prisons more humanistic theories of correction, stressing rehabilitation rather than punitive methods, has resulted in additional human services to convicts and a much closer relationship with the staff. The question of discipline has become secondary to the idea of relating to the offender. Much closer contact between clients and staff enhanced evaluation and prediction methods as well as lessening discipline problems, thus lowering recidivism.

Similar innovations and changes in philosophies in the treatment of the mentally ill have occurred. Increased contact between staff and patients was felt to lessen the dehumanizing effect of the state

hospitals. With the advent of the phenothiazine drugs, patients were returned to their communities more quickly. Such additional changes as small group methods and more democratic hospital administrations prepared a patient for re-entry into his community in a shorter time. With these changes, professional staffs became freer to work directly with patients instead of being tied down to problems in managing them. As the professional's role in mental hospitals changed, a broader variety of staff with less traditional expertise were called upon to provide expanded services to patients. Community programs grew as well, as half way houses and day treatment centers opened. One result of these changes was increased contact between mental health staffs and their patients. Old barriers of distance and formality disappeared and in their place came the concept of community mental health.

Most of the studies related below indicated a need for more research in order to determine the accuracy of clinical decisions as well as to explore the countless variables which might impinge on the making of such decisions. The variable which was identified as probably having the most impact on these decisions was that which dealt with social aspects. Research up to this time had suggested that the professional's decisions with regard to diagnosis and prognosis, were not made in a vacuum, but made in an environment where he must deal with his own prejudices and weaknesses, as well as those of his own co-workers.

From this review it can be assumed that staffs of both penal and mental health institutions were far more vulnerable to being influenced by their charges merely because of their much closer interaction

with them. It was not known just how much effect such closer interaction has on the staff's ability to make predictions and diagnosis.

The concept of manipulation was also important in terms of the increasing awareness of the part it played in modern life. Machiavellianism is a particular form of manipulation as measured by a scale designed by Christie (1970). Christie and others found that those who scored high on his scale consistently outmanipulated those who scored low on the scale. The successful manipulators, called high Machs, were significantly more adept at achieving personal goals. They were able to manipulate better, persuade others more successfully and generally compete more effectively in interpersonal situations where their goal was to win or gain personal objectives.

Many innovations have taken place in both the mental health and penal fields. Such innovations were mainly concerned with the staff roles in prisons and mental hospitals. Interpersonal involvement was the concept central to these changes. Due to these innovations, there was a great deal more interaction between staffs and clients. Such innovations have brought about many new social variables into the diagnostic, prognostic and treatment processes. In this study the author will investigate how such interaction may affect one of these processes, that of prognosis.

Statement of the Problem

This study was based on the theory that the degree to which a patient or prisoner agrees with the tenets set down by Machiavelli, as measured by the Mach V Scale, is related to the type of prognosis given

him by a staff member with whom he has close contact on a day-to-day basis. The literature reviewed suggests that trends towards closer, more involved interaction on the part of the staff with their clients creates an atmosphere which is more conducive to interpersonal manipulation.

The central problem in this study is to determine if a client's ability to manipulate interpersonally is related to the staff's evaluation of him in terms of prognosis. If a client is a high Mach, as measured by the Mach V Scale, it may be that those staff members who are closest to him would tend to see him as having a good probability for future success in life adjustment.

The secondary problem was to determine if there is a difference between the staff-raters' prognostications of the clients, their own Mach score, and their client's Mach score. Therefore, if a high Mach rater consistently rates high Mach clients in the successful prognostic category, it might be assumed that he tends to positively respond to such manipulators. If he were to consistently rate these same high scoring clients in the unsuccessful prognostic category, then it might be assumed that he may tend to react negatively to those clients whose Mach scores indicate that they respond to interpersonal situations in the same manner in which he responds. Such a relationship, with regard to low Mach raters, might also be assumed to be true. Either type of situation would suggest, again, that a staff member's individual theory of interpersonal interaction, when related to that of the client's whom he evaluates, is an important variable in the overall evaluation process.

Hypothesis

In order to test the primary problem of this study the following hypotheses were tested:

H₁1: There is no significant difference between Mach scores and staff prognostic ratings of prison inmates and of patients in mental health institutions.

H₁2: There is no significant difference among the Mach scores of the raters, client ratings, and the Mach scores of the subjects he rated.

Definition of Terms

Machiavellianism refers to a combination of attitudes and behavior which an individual holds and exhibits in his everyday life. These attitudes and behaviors are designed towards one end, that of manipulating the individuals and situations around one's self so that the results will be favorable for that individual. A review of the present research (Geis and Christie, 1971) shows that individuals who exhibit Machiavellian traits: continually test limits; push situations to their final conclusions; have a good sense of timing and opportunism; initiate control and structure over groups; take advantage of ambiguous situations and exhibit cynicism and suspicion in their interpersonal relationships. The Mach V Scale refers to a forced choice scale of twenty triads which measures agreement with Machiavellian traits as developed by Christie (Christie and Merton, 1958); the Mach Scale refers to the Mach V Scale. High Mach refers to a person who manifests in overt behavior the characteristics measured by the Mach scale and the

high Mach is the individual who scores above the mean on the Mach scale.

A low Mach is a person who scores below the mean on the Mach scale.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

The management and control of others through the use of influence and/or manipulation has been the interest of many theorists and practitioners for more than two thousand years. Christie (1970) goes back to Genesis to find Eve being duped by the serpent. The Book of Lord Shang written about 300 B.C., an early work on controlling others, was a treatise which gave suggestions to rulers about administering their countries.

Prognosis and diagnosis have been investigated quite extensively. The value of these concepts in aiding the prediction of future behavior continues to be debated by both practitioners and researchers.

Manipulation

Manipulation has usually been studied in the sense of it being an amoral means of interacting with other people. Shostrom (1967) concentrated only on the negative aspects of manipulation and did not deal with the social correlates surrounding such an activity, nor the practitioners of it. Lee (1966) cited the criminologist Sutherland as stating that corporations were now aiming at the manipulation of indiv-

iduals through advertising, selling and lobbying and have thus adopted a "true Machiavellian ideology and policy" (p. 233). He stated that their aim was greater efficiency and more positive results and that this was the way they were achieving them. Lee himself stated that from his view, Machiavelli's perceptions were more true in our present society than they were in any time past. While agreeing that many of Machiavelli's tenets were accurate, he also stated that they may have been written satirically, possibly as a warning about their employ. In comparing modern management principles with manipulation, Jay (1968) stated that today's large corporations followed many of the rules set down by the Florentine writer. Again, the author did not make any value judgments with regard to such behavior, however he did state that modern management seemed to have patterned itself after the machinations described in The Prince.

The strongest statement on future results of manipulation was that of Huxley (1958) on the current and future threats to our freedom. He cited the development of advanced propaganda techniques, conscious and unconscious means of persuasion and computerized investigation as being possibly forewarnings of things to come which could destroy our freedom. In light of the current investigations on data collection and surveillance of civilians, Huxley's comments may be more realistic than they first appeared.

Manipulation is, for the most part, not discussed in most of the clinical literature. Sociologists and psychologists, when writing about it, usually have done so in a very general manner, not usually investigating specific settings or roles where manipulation might be a

factor. Jourard (1964), in discussing manipulative behavior in the nursing profession, emphasized how nurses manipulated their patients in order to get their jobs done in the most efficient manner.

Most professions have emphasized the importance of 'good interpersonal relationships,' but careful study shows that what so called interpersonal experts among nurses actually do is institute clever manipulations which make the patient do what he is supposed to do. In short, much of the contemporary competence seems to entail suaveness in getting patients to conform to the roles that they are supposed to play in the social system of the hospital so that the system will work smoothly, work will get done faster, and the patients will be less of a bother to care for (p. 148).

As can be seen from the above statement, manipulation appeared to be immoral, unjust, and not in the patient's best interests. Goffman (1961), in a revealing study of the social system of a state hospital looked quite closely at both staff and patient interaction. In several chapters he described how manipulation was utilized by the patient as a means of getting more comforts in a large, impersonal, social system such as prisons, hospitals, or the military. The world of any of these social systems was, by Goffman's description, not much different from outside society because it had a meaningful, complex society from which its members would invoke punishments and rewards according to each individual's behavior. The author's descriptions of what he called "secondary adjustments" or ways the patients manipulated these systems were fascinating as he described how patients and prisoners were both able to get special food, easier work assignments, more favorable sleeping arrangements, and their choice of treatment by simply knowing how to make "bargains" with other individuals or the staff. In this unofficial aspect of the system, Goffman described how patients acquired clothes,

rooms, and equipment which became their own private property throughout their stay in the institution. It appeared that manipulation in such a social system was an activity in which all the members of the system participated, the staff receiving as many secondary gains from this unofficial interaction as the patients. The author did not deal with how such activities affect the formal goals of the institution, those of treatment or custody, but it seemed obvious that there were effects.

Machiavellianism

The most spectacular power theorist of modern time is Machiavelli, whose The Prince and Discourses gave specific instructions on how to gain power and hold on to it. Christie (1964) stated that he was attracted to the subject of power and the controlling of others while at the Center for Advanced Studies in the Behavioral Sciences. He felt that most of the studies that had been done up to that time had been about leaders but not followers. Christie had himself published extensively in the area of Authoritarianism and criticized it as he felt that the concept accounted only for a small portion of effective leaders. He felt that Machiavelli was a good, modern source of observations about power and the manipulation of men because he made specific, consistent statements on this subject. He also felt that Machiavelli's writings would also cover the main tenets of other power theorists.

After some informal thinking and trial scales, Christie began to find that individuals who were the most active in the power structures of their fields tended to agree more strongly to Machiavelli's statements than those who were less active in those same power structures. It

was at this point that he began to use the term Machiavellian to describe the attitudes, behavior and roles which are measured by a scale he had developed called the Mach Scale (Christie, Note 1; Geis, Note 2; Geis and Christie, Note 3; Christie, 1970; and Geis, Christie and Nelson, 1970).

Thus the trait of Machiavellianism was "discovered" and Christie set about measuring it in a more formal manner. He devised a scale which measures Machiavellian attitudes. For this scale, he collected items from The Prince and Discourses, put them into modern form, and then began using them to differentiate between respondents. After using the items in several different forms and carefully eliminating those items which were not internally consistent (Mach I-III), he had 71 items which were able to identify individual differences between subjects (Christie in Christie, 1970b). Next, he began making group comparisons and eventually 20 basic items were selected (Mach IV). They were counterbalanced for response set and then administered so that greater refinements could be made. The author found that the statements were able to discriminate at the .05 level of significance between high and low scorers and that the item reliability was .79 (Christie, 1970b). A new scale was constructed in order to account for the effects of social desirability (Mach V); it used twenty statements in series of three items each, the respondent choosing the item he agreed with most and the one he agreed with least.

The scoring system of the Mach V was designed to show the degree to which the respondent agrees with the Machiavellian orientation.

There are two possible categories low, and high, ranging from least to most agreement.

From Christie's work (1970b) the scale's reliability was shown to be .60. He stated that although such reliability was not overly impressive, he felt that the elimination of response set and social desirability increased the scale's reliability. At this point he felt fairly certain that positive Mach scores showed the willingness of those responding to it to agree with Machiavelli.

Christie carried out several correlational studies to determine if there was any relationship between the Mach V and certain standardized tests (Christie and Merton, 1958). He found that:

1. The Mach V does not correlate significantly with verbal scores of medical students on the Medical College Admission Test;
2. The Mach V does not correlate with IQ measures given to students in the School of General Studies at Columbia University;
3. The Mach V does not correlate with the aptitude battery given at Pennsylvania State University;
4. The Mach V does not correlate with ability test scores given by the Peace Corps among trainees; the average correlation being +.10 and +.11;
5. There was no correlation between the Mach V and the California F; the average correlation being -.10;
6. There was no correlation found between the Mach V and either the Edwards Personal Preference Schedule or the Crowne-Marlowe Scales of Social Desirability.

Christie also stated that there had been no correlation, to date, between educational level or years of education and Machiavellian tactics (Christie, 1970b). With regard to other personality measures he found no significant relationships between either the Minnesota

Multiphasic Personality Inventory or the California F (Christie and Merton, 1958).

Christie (1970c) also found that the Mach V does not relate to political preferences, racial attitudes or anxiety. He summarized the characteristics of high Machs, which he received after doing the correlational studies:

Although no correlations have been found to date between Mach scores and measures of psychopathology, there is overwhelming evidence that high Machs have a generally unflattering view of others, a cynical view of people in general, and in one instance, of specific individuals . . . (Ibid., p. 52).

As might be inferred from the content of the Mach scale items, most of the differences between high and low scorers were in reference to their behavior in social situations.

Christie and Geis (1970) referred to the Machs' behavior patterns as "the Cool Syndrome," as the highs showed three specific characteristics: (a) resistance to social influence, (b) an ability to ignore social concerns when they interfere with the performance of a task, and (c) a tendency to initiate and control the structure of social interactions. Low Machs, on the other hand, are considered "soft touches" as they have (a) susceptibility to social influences, (b) a greater concern for individuals, and (c) the tendency to accept and follow others' structure. Each of these three categories will be considered separately, although there will be some overlapping.

With regard to response to social pressures, it has been fairly clearly defined that high Machs tend to resist attempts at being influenced, while lows are more easily led by the opinions of others. It might be noted that highs are also influenced, but only by rational

arguments. Low Machs, on the other hand, seem to be easily persuaded or at least be more likely to respond to the demands of others, explicit or implicit. Wilkinson (1974), in attempting to relate Machiavellianism to dogmatism and conservatism, utilized the "Kiddie Mach," a shortened version of the Mach scale. His results demonstrated that resisters to innovation (the team approach) had significantly higher Mach scores. It was felt by the author that those who were more conservative, dogmatic and higher in Machiavellianism had lower faith in others than those who scored lower. Another study which illustrated this difference between high and low Machs was that by Bogart, Geis, Levy, and Zimbardo (1970) who involved subjects in a cheating situation similar to that used in many of the Mach correlation studies. Bogart and his associates placed subjects in a situation whereby they worked with a confederate who encouraged and attempted to assist them in cheating. The characteristics of the confederate were varied systematically. In one part of the study he was presented as a Phi Beta Kappa law student, while in another part he was a not-too-bright industrial arts major. The researchers felt that cheating at the request of the partner who appeared more attractive was more "rational" than cheating for the other, although the confederate's behavior was identical in both situations. High Machs responded to the label of their confederate; 79% cheated for the "law student" while 28% cheated for the industrial arts major. Low Machs seemed to respond to the behavior of their partners almost equally (43% vs 50%).

Okanes (1974) presented another example of high Machs'

resistance to influence and some insight into what was behind such resistance in terms of value differences. He administered the Mach V and Rokeach's Value Scale to 97 seniors in a Business Policy class in an attempt to find differences in attitudes of forgiveness, honesty and imagination. He found that highs ranked significantly lower in the equality scales. His conclusion was that high Machs continually ranked in the "disbelief in people" type of life orientation so often mentioned by Christie (Christie and Geis, 1970).

Rim, as reported in Smith (Note 4), had groups of subjects answer part of a "choice-dilemmas" questionnaire privately and then attempt to reach group consensus. The results showed that high Machs tended to choose risky alternatives at first, and did not change after group discussion. They were also rated by the group as being the most persuasive members.

In investigating the relationship between acculturation and Machiavellianism, Weinstock (Note 5) found that Hungarian refugees who successfully acculturated to American life also tended to be more Machiavellian. The findings were not clear, however, as to whether the successful refugees were high Machs to begin with or merely gained this outlook with the cultural change.

With regard to the Machiavellian's response to external cues, Christie and Boehm in Christie and Geis (1970) tested the hypothesis that such response was related to their sensitivity and curiosity. They utilized pictures of final contestants in an annual beauty contest from a span of the last 19 years. They had the subjects attempt to guess the

winner of each contest from the contestants' pictures. They were told of their accuracy after each series of pictures in order to provide continuous feedback. The hypothesis that high Machs would be better learners was not confirmed. There was no significant difference in high and low Mach learning ability. The investigators' speculation regarding these results was that high Machs did not succeed because the highs had to function in a situation which provided little ambiguity, thus the opportunities for manipulation were fairly fixed. Another reason given was that there was no face-to-face interaction, as judgments were made from photographs and no direct feedback was given from the contestants themselves. Finally, and most importantly for this section, the subject was in competition with himself but not directly so with others. Thus, as other studies have shown, the high Mach worked best in situations where he was in face-to-face interaction with those with whom he was competing. It appeared also that the Machiavellian personality functioned best when in direct competition and under pressure. Therefore, the social pressure of competing directly with others appeared to give the high Mach extra incentive as well as more information from which to proceed.

By utilizing game theory to further investigate the Machiavellian manner of operating in competitive situations, Christie, Gergen and Marlowe in Christie and Geis (1970) used a game called Prisoner's Dilemma whereby two subjects, working on separate consoles, each made single choices between two alternatives. After each choice the subjects were apprised of their accuracy. Final results were calculated by the number of agreeing choices. Neither knew the other's choice until both

were given the results. The rewards for success were substantial monetary rewards. Results showed that such rewards did not have any effect on the lows' performance; the highs won substantially. One interesting aspect that came out of this study as a side issue of the original focus was the fact that an analysis of the results also showed the highs to be more rational game players. This further pointed up their ability to remain emotionally detached even in circumstances where external conditions, high monetary rewards, could produce additional stress which might influence their behavior. On the other hand, a study by Geis, Weinheimer and Berger in Christie and Geis (1970) clearly showed that lows failed when they attempted to use the same techniques as the highs. The experimenters used political beliefs and personal values, whereby the subjects had to defend their personal positions. Results indicated that when trivial issues were involved, the lows did as well as the highs; however, given emotional issues, the highs were again more successful.

The low Machs losing the emotional issue was not due to the failure to understand the game intellectually, to refusing to seek support for a position they privately opposed, or to vote according to conscience rather than payoff position. They lost to the highs by the greatest margin on issues they most strongly endorsed, not those they privately opposed.

The results of the study together with those of previous studies, clearly support the notion that one of the significant advantages of the high Machs in competitive bargaining with lows is that the lows become distracted by ego-involving elements in the bargaining context, while high Machs remain detached from such concerns and concentrate on winning (Christy and Geis, 1970. p. 209).

Another consistent difference between high and low Machs was how emotionally involved each was willing to become in social interactions with others. For the most part, the highs resisted becoming

involved on a social level but remained task oriented. Lows tended to be much more easily distracted by becoming involved in social interaction that was not relevant to the task at hand. Geis (1970a, 1970b) did a study whereby three subjects played a strategy-type game together. As the game was structured, the making of coalitions was important in order to win; the rules required that the coalition members agreed as to how they would split their winnings should they win. Players would usually make and break several coalitions during the game. Geis compared final winnings with what the individual would have won if he had stayed in the most profitable coalition which he had broken by his own choice, and in this way determined the amount of social distraction. If it were true that low Machs were more socially oriented, it would be expected that highs would pay more attention to offers of point-splits, while the lows would be more interested in how the partner offered the coalition, and whether the potential partner needed assistance or not. The lows would also be expected to be concerned with whether the partner was a nice person. The results were consistent with this interpretation. There were no differences between high and low Machs in the number of coalitions broken, the breaks that the highs made were more profitable. By breaking the coalitions selectively, they finished the games with more points and the lows lost by a more significant margin, both differences being significant beyond the .01 level.

Two early studies investigating occupational choice and Machiavellianism demonstrated that high Machs tended to choose occupations where a higher degree of personal manipulation was involved (Christie and Merton, 1958; Back, note 6). One of these studies dealt with

practicing physicians while the other dealt with medical students. It was demonstrated that physicians in specialty areas such as psychiatry and pediatrics, where interaction with the patient was high, tended to have significantly higher Mach scores than those interested in or practicing in other specialty areas such as surgery and internal medicine. The assumption being that physicians in most specialty areas other than psychiatry and pediatrics did not have as intimate a relationship with their patients. Christie clarified this by stating that specialties such as internal medicine and surgery were such that most of the patients were referred by other physicians, the treatment usually being for a specific illness, thus the relationship was usually short term and superficial. Whereas psychiatrists and pediatricians traditionally spent more time with their patients and have a more personal relationship with them. Christie felt that high Mach physicians tended to choose sub-specialties where closer, more personal interaction was found. In psychiatry specifically, he felt that influence and persuasion were accepted tools.

In other vocationally oriented research, both Milbrath (note 7) and Christie (1964) found relationships between vocational choice and Machiavellianism. Milbrath found that Washington Lobbyists' success was highly correlated with their Mach scores and that the scale even differentiated between lobbyists who spent most of their time talking with members of Congress, those who related more to others in general, and those who had more than one client at a time.

In comparison to highs, the lows were more strongly affected by the impressions made on others, even when the feelings may not be the

same. Jones, Gergen, and Davis (1962) found that high Mach females were sensitive to the impressions they made upon interviewers. They were willing to change such impressions to adapt to real or imagined approval or disapproval of the interviewers. Low Mach females seemed very aware of communicating affect and showing warmth in their social relationships than did highs. The highs seemed to be more detached, and reacted to the structure rather than to the feeling.

High Machs did not necessarily relate to other highs. Jones and Daugherty (1959) found that they tended to place a lower value on others who seemed to have the same value system as themselves if they contemplated a situation where they will be competing with the other individual.

The coolness of high Machs appeared to be evident in other situations besides those in which there was social interaction. They appeared to be better able than lows to assume an outlook of detachment when outside social or emotional pressures which might interfere with their performance of a task. Geis, Weinheimer and Berger (1970) investigated bargaining effectiveness in the presence of potential emotional distractions. They had subjects play "Legislature," where each subject was assigned issues plus an indication of how his constituency wanted him to vote on each. The subject as the legislator received points if the group majority voted as his constituents specified. Conflict was built in by giving people different payoff positions.

They were given a limited bargaining time and then required to give a speech on the issue of his choice before votes were taken. Two of the games were most relevant. In one, all of the issues were highly

charged, while the other was designed to be as uninvolved as possible. It was important that strategic interactions be carried out as quickly and efficiently as possible.

The authors hypothesized that low Machs, but not high Machs, would be distracted by the content of the issue and as a result fail to bargain effectively, and therefore lose points. The high Machs were able to handle irrelevant affect in the game interaction. In the neutral game lows won more points than highs, but when the issues were emotional, highs did significantly better ($p < .03$). Apparently the differences are due to the lows' failure to concentrate more attention to the high payoff issues than to the low payoff ones (5 vs. 3 pts.). High Machs averaged 3.30 points on high value issues and 1.32 on low value ones, while lows had averages of 1.89 and 1.60. The authors looked at the number of times each subject voted against his payoff position as an indication of distraction. There was no difference between highs and lows in the neutral game, but lows were more likely to make such mistakes in an emotional game.

The high Machs' emotional detachment in situations which were task oriented extended to their own behavior. Highs do not take their own behavior as seriously as lows take theirs, even in psychology experiments. Such detachment was demonstrated in three studies on dissonance (Burgoon, Miller, and Tubbs, 1972; Epstein, 1969; Feiler, 1967). All investigators used a forced choice instrument which advocated counter attitudes as a measure of dissonance reduction. High Machs, in each case, did not change their attitudes after engaging in the counter attitudinal behavior, while the lows did, particularly in the most

dissonance arousing conditions. Feiler, as cited in Smith (1973), even created conditions which were more controlled and found that lows talked themselves into agreeing with the position more strongly than they had previously. Thus it appeared that high Machs were able to carry out the experimental tasks with less emotional involvement than lows.

In many of the Mach studies, low Machs have been overwhelmed in social situations, resulting in their inability to conduct a successful personal strategy. Durkin (1970) was curious about the behavior of low Machs and what they do while their more successful counterparts were busy manipulating. The author hypothesized that low Machs got distracted from the task by empathetic involvement with their co-subjects, as he felt that they have a personal orientation and were more likely to become involved in the group process. Thus he felt that low Machs seemed to react to the individuals involved, the high Machs to the situation. Through the use of encountering methods, where change was attempted through direct contact with one another, the hypothesis was tested. The results showed that the low Machs were significantly more encounter prone and responded more personally, while the highs interacted in a goal directed, impersonal manner. The lows seemed to let themselves be influenced by others, rather than having any conscious strategy.

In reassessing high Mach behavior which had been labeled "defensive manipulation" in a pilot study by Exline, Thibaut, and Gumpert (1961), that of cheating and then looking an interviewer in the eye while denying it, Geis, Christie, and Nelson (1953) investigated whether such behavior would be manifested in a laboratory situation. They found that high Machs showed more manipulative behavior than did the lows, and

that the highs indicated that they actually enjoyed the tasks. The lows indicated that they did not enjoy such behavior.

Much of Geis's game research on the behavioral implication of Machiavellianism, was also relevant to this section, as she was able to demonstrate the high Mach's ability to distract others as well as their overall ability to manipulate in general. In a three-man coalition bargaining game where players could bargain with other players to form coalitions, she felt that she could show a direct reflection of manipulation through the game scores as well as the utilization of ambiguity and persuasiveness. The results were as she predicted; highs consistently outbargained lows and were even more successful when the situation was ambiguous. Geis felt that highs tested out a situation and then constantly tested the limits. As to the underlying motives of such a need to continually exhibit this behavior in such situations, Levenson, Hannah, and Mahler (1975) found a relationship between Machiavellian attitude and Locus of Control. It was the feeling of these researchers that high Machs manipulated because they felt powerlessness. Additional work by these same individuals investigated whether people who felt that they were controlled by others more powerful than they would have negative views of others in general. Results indicated that the more the subjects felt that they were controlled by "powerful people" the more they distrusted others in general.

Therefore, it appeared that the Mach scales can differentiate between individuals with regard to how they respond to potential and actual social situations. High Machs appeared to be able to ignore emotional and social distractions and were more task oriented, persuasive,

and personally unresponsive, while the lows reacted more empathetically to people and responded in a more involved manner, which had resulted in their being outdone by their high Mach counterparts. With respect to leadership in group situations, the findings have shown that high Machs were better able to attend to the task at hand and not be distracted, they also appeared to enjoy being leaders in task oriented activities and were effective in this role.

Several studies have shown that high Machs moved towards leading leaderless groups. Geis, Krupat, and Berger (note 8) had subjects discuss a specific issue which dealt with attitudes in groups of four individuals. They then had to rate each other with regard to certain specific issues. High Machs were rated higher than lows with regard to leadership and group effectiveness. Kosa (1961) found similar results. Geis (1968) had students in a psychology class divide into four person teams to work on projects. Highs were elected group leader more times ($p < .01$), and furthermore appeared to be good leaders, as these groups made significantly better grades than groups with lower Mach leaders.

In a study by Christie and Geis (1970b), three individuals were given the task of dividing ten \$1.00 bills among themselves. Only two could share, this was to encourage bargaining. By recording the opening statement in each group, it was determined that the high Mach began with an organizing statement more often than any of the others. Thus it appeared that highs were more likely than lows to impose structure in a social situation. Geis (1970) saw high Machs as domineering and attempting to control others from the start. She also felt that they

were especially unresponsive to personal or ethical considerations of others.

Again, with regard to highs structuring situations, Weinstein, Beckhouse, Blumstein, and Stein (1968) had subjects pretend that they were in an employee interview. Potential outcomes of the situation were varied to create three different incentives. The subjects were asked to imagine that the interviewer could promote them in one condition, demote them in another, or transfer them to a different job with equal pay. The subjects were rated in the interviews for their use of being able to influence another's behavior towards themselves by making the other individual take on an identity in the specific situation which assisted the highs in their goals within the group. High Machs were significantly more controlling than low Machs.

In an attempt to engender the highest competitiveness possible within a group situation, Christie and Geis (1970) devised a game where a player could win up to \$40.00. Their goal was to ascertain whether the results of such a game would be similar to past game studies, the only difference being the higher payoff. They felt that if the past research held true, the lows would not do any better than they had previously. The results can be stated quite simply; the highs won and the lows lost, the results being significant at the .05 level. The high Machs tested the limits of the situation without breaking the rules. They also controlled the structure and relationships within the group. No high failed to be a member of a winning team; they won overwhelmingly.

It was clear that highs appeared to be more effective in group situations where tasks were involved, it was still not known whether or

not they actually took over and imposed structure, or if they became leaders due to a vacuum of leadership left by the lows in the group. Research reviewed up to date suggests the first reason.

Although research was limited, it did appear that individual differences with regard to Machiavellian behavior can be detected early in life. Several investigators have found that such traits could be detected as early as 10 years of age (Braginsky, 1970; Nachamie, 1969; and Edelstein, 1966). It was also found that high and low traits in children show the same behavioral traits as their adult counterparts. The use of the "kiddy-Mach," a scale for children, is the main source of speculation and hard data regarding Machiavellian behavior in children. The most interesting information which came from this research was that the higher the Machiavellianism of the mothers, the lower it was for their children; the direct opposite also appeared to be true. Dien (1974) felt that this was the result of children of low Mach mothers having to learn to manipulate their environment early in order to get what they wanted. Christie (1970d) also agreed with this theory.

Investigation of social class differences have found to be of only limited use in predicting Mach scores (Christie, 1970). The relationship between social mobility and Machiavellianism has also been only slight, although it has been found that a Machiavellian orientation combined with intelligence and self-control seemed to be associated with success in upward mobility (Touhey, 1971).

There appeared to be no correlation between educational level and Mach scores, but there was a relationship with the prestige of the college attended (Christie, 1970d). Mach scores, in most populations

tested, did not correlate with measures of intelligence (Christie and Geis, 1968), but there was some indication that intelligence was related to success at Machiavellian attempts with regard to social mobility.

In investigating the concept of self-control in carrying out Machiavellian behavior, Fontana (1971) had nurses and doctors in a psychiatric setting rate their patients on a scale measuring the reputation of the patient. One of the ratings, that of critical manipulation, was expected to correlate with the Mach scale. This rating concerned criticism of variables such as staff, a general manipulative approach, and success at persuading others. The Mach correlated with the manipulator ratings ($p < .02$). It appeared that nonpsychotic patients had better self-control and were better manipulators.

In summation, persons who scored high on the Mach scales appeared to be detached, cynical individuals who tended to have an unflattering view of others. Although personally unresponsive, they chose situations where interaction occurred and were especially sensitive to others' reactions. They were task oriented and tended to control the structure of groups in which they were involved. Interpersonally, they were cool towards others, being much more concerned with ends rather than means. They continually tested the limits of a situation and were able to successfully take advantage of any power vacuum. They mistrusted others and did not expect interactions to be rewarding. They were, in general, more manipulative towards others and mistrusted their environment, and tended to react more strongly to a situation which was perceived as threatening. They also tended to make choices which appeared to be more rational. It was felt that high Machs utilized the aforementioned

behavior as a defense against what they perceived as being a hostile environment. Most importantly, they were successful at interpersonal manipulation.

Prognosis

In discussing both the objective and subjective elements of diagnosis and prognosis in mental health, Koesler (1954) remarked:

Diagnosis in psychology is both a science and a clinical art. It is a science since it is based on probable inference and actuarial analysis of objective data. It is an art because it also requires an element of judgement which goes beyond the use of prediction tables and regression equations. Although the scientific aspects of diagnosis can be learned in a systematic fashion by the perspective counselor, clinical judgement is not so readily acquired. Well trained and experienced counselors frequently cannot articulate the basis for their hypothesis and thereby be of assistance to the counselor in training (p. 473).

Young (1956) talked of the creativity involved in forming a diagnostic statement, as it went from a series of individual observations, inferences, and conclusions to a total conceptual structure which attempted to picture the individual from all of these various components. She stated:

A diagnosis is a conclusion, a picture however incomplete made up of all the available facts fitted together within a particular frame of reference for a particular purpose. As a conclusion it is inseparable from the diagnostic process that created it and from the purpose that determined the frame of reference. As an abstract entity it is meaningless. In casework we are concerned primarily with social and psychological objectives and facts, and we have learned that these are interacting and dynamic in nature. Specifically we need to know the sociological and psychological facts that will enable us to help a particular person with the problems that are burdening his life. To discover these facts, to put them together so that they yield their meaning and to learn upon the basis of that meaning what we can or cannot do is the process of diagnosis (p. 275).

Criticisms of conventional forms of the diagnostic and prognos-

tic process in mental health were imposing and varied (Ash, 1949; Cattell, 1957; Eysenck, 1952; Foulds, 1955; Harrower, 1950; Hoch and Zubin, 1953; King, 1954; Leary and Coffey, 1955; Mehlman, 1952; Menninger, 1955; Roe, 1949; Rogers, 1951; and Thorne, 1953). Their main arguments were that these processes may be more harmful than helpful, as they might 'label' an individual for life and yet may not be helpful nor even accurate. One of the most often stated criticisms was that these processes were unscientific; they had not been found, for the most part, say these critics, to be scientifically accurate and thus able to consistently predict behavior. Another criticism was that these processes were not objective enough to be of any true help. To corroborate this statement, the diverse number of personality theories from which these diagnoses and prognoses stem were cited to suggest that clinical opinions differed according to theoretical position. Pennington (1954) suggested that the current diagnostic system was inefficient because it was based on symptoms which may very often fluctuate within an individual patient while the observational techniques and the situations under which the symptoms were observed were standardized (p. 378). Other criticism had ranged from statements that the present system needed further refinement (Caveny, Wittson, Hunt, and Herman, 1955; Foulds, 1955), through the advisement of major revisions of the entire system (Cattell, 1957; Eysenck, 1952; and Leary and Coffey, 1955), to a stand for abolishment of all classification and diagnostic systems (Menninger, 1955; Noyes, 1953; and Rogers, 1951). One specific study which attempted to validate existing clinical prediction techniques was done by Meehl (1954) who was vociferous in his

criticism after finding that he was unable to find any calibrating evidence; he expressed the opinion that research in this area was just beginning and that it must continue. With regard to present research, he said:

For some reason the literature contains almost no carefully executed studies of the clinical-actuarial issue. Although a number of psychologists, psychiatrists, and sociologists have discussed this problem, empirical evidence is largely wanting. I have been struck by the fact that both statisticians and clinicians often seem to think that the answer is 'obvious,' the trouble being that they don't agree on what it is (p. 83).

The reliability of prognostic and diagnostic processes had been investigated by Mehlman (1952), who, after studying over 4000 cases for reliability of the diagnosis assigned, came to the conclusion that the existing systems for classification were not workable. A similar study with fewer subjects found that 80 percent of all diagnoses made at one state hospital were confirmed by another diagnostician (Schmidt, Hermann, and Fonda, 1956). Ash (1949) found disagreement on more than half of a number of diagnoses when they were reviewed jointly by the original diagnostician and an impartial judge. A similar finding was the result of studying 804 patients' diagnoses during their second hospitalization; a significant number of the diagnoses were changed at the time of this review. The investigator recommended that a diagnosis be deferred until the patient and the diagnostician were more acquainted with each other (Wallinga, 1956). The aforementioned researcher also stated that without proper diagnostic means, the clinician would never be able to predict future behavior of his patients.

In one of the few longitudinal studies done with regard to prognosis, Astrup, Christian, Fossum, Arne, Holmboe, and Rolf (1952)

studied 1102 patients for five years and found that the treatment staff was able to predict future adjustment for over half of the patients. Hathaway (1956) stated that he felt that clinical intuition could not be corroborated statistically. He was strongly in favor of continued research designed towards objectifying the diagnostic-prognostic process.

The personal-social variables within the diagnostic-prognostic setting was another aspect to be more fully investigated. Due to the very subjective nature of these clinical tasks, the degree to which they were influenced by social factors was of great importance. Leighton, Clauson, and Wilson (1957) stated the problem:

There is a growing awareness on the part of mental health personnel of the social relationships between themselves and the patient. The therapist as well as the patient brings to the therapeutic transactions his own needs, values, and beliefs. To what extent do psychiatrists perceive through the prism of their own socialized selves? How much of the often reported diagnostic variability is a function of the differential responses evoked from the patient by the differing personalities of the therapist (p. 347).

The authors then concluded that a careful assessment needed to be made of the principles and procedures underlying these operations with particular concern given to preconceptions. Schimerhorn (1957) also cited the social dimension of prognosis and diagnosis as one main reason for increased research in this area. An illustration of possible basis for variability was shown in a study done by Temerlin and Trousdale (note 9) where they found that suggestions from a person considered prestigious by the diagnosing professional greatly effected the process of diagnosis. Using an actor posing as a patient, the experimenters had him tell the exact story regarding his personal difficulties to various professionals in psychology, psychiatry, law, etc. Before or after the story was told, a person prestigious to the professional subtly suggested the

"patient's" diagnosis. An analysis of the data showed a positive relationship between the diagnosis made and the one subtly suggested to the diagnostician. Such a study clearly showed how influences outside of the clinical domain could play an important part in many professional activities in where the judgment to be made was one combining specific facts and clinical intuition.

In one of the largest studies of its kind, Hollingshead and Redlich (1958) studied the relationship between social class and the treatment of the mentally ill. They found that there were significant differences in treatment which they felt depended upon the patient's social class. From their data it appeared that working class patients were more often placed in state hospitals and treated with the use of somatic therapies (drugs and shock treatment), while middle or upper class patients were more likely to be treated through outpatient clinics by psychotherapeutic means. In an attempt to explain their findings, the authors explained that:

Psychiatrists try to pick good clients--this means that they have intelligence, sensitivity, social and intellectual standards similar to the psychiatrists, a will to do one's best, a desire to improve one's personality and status in life, youth, attractiveness, and charm (p. 192).

Thus once again it appeared that the personal dimension was inexorably related to the professional decisions which mental health personnel made daily. Semantics, unconscious cues, dress, accents, place of employment, and address were all among other personal variables which other investigators have found to be influential within the mental health treatment process (Borgatta and Phillip, 1953; Thorp and Sternlock, 1957; and Mitsoe, 1959).

With regard to the efficiency of predictive measures in penal settings, Ohlin (note 1) described the need for consistent follow up and comparison studies in order to make such measures more effective. Many of his criticisms of the present practices were quite similar to those previously quoted for the mental health fields. His recommendation of more follow up research of a longitudinal nature, was also similar.

CHAPTER III

METHOD

The central problem in this study is to determine if a client's ability to manipulate interpersonally is related to the staff's evaluation of him in terms of prognosis. The secondary problem was to determine if there is a difference between the staff rater's prognostications of the clients, their own Mach score, and their client's Mach score.

Subjects

A sample of 40 volunteer subjects was obtained from each of three institutions: Central State Hospital, Norman, Oklahoma (psychiatric inpatient); Tulsa Psychiatric Center, Tulsa, Oklahoma (psychiatric outpatient); and El Reno Federal Reformatory, El Reno, Oklahoma. In institutions where both sexes were present (Central State Hospital and Tulsa Psychiatric) 20 male and 20 female subjects were obtained in order to counterbalance for gender. Subjects from each institution were randomly selected from populations of intake groups who volunteered for the study. These intake groups within each institution were designed to provide an adjustment and evaluation period for all clients entering and met for the first three to four months of their stay in

the institution. The Tulsa Psychiatric group differed in this respect as they continued together throughout their outpatient treatment stay, this averaging eight to 12 weeks. Those excluded from the total population from which the sample was obtained were individuals administratively determined to be overtly psychotic, or to be in a "chronic" category (drug addict, sociopath, alcoholic, or "lifer"). This exclusion was made in attempt to avoid utilizing subjects whose labels or reputations might lead staff members to foregone conclusions with regard to prognosis. Additional criteria were that the subjects be able to read and write at a sixth grade level or above (determined at intake).

The individuals in institutional intake groups were made a part of the overall life within the institution soon after they entered, the only differences in their daily routine being that they met separately with an adjustment team several times a week. The staffs, who were to be raters, in these adjustment groups differed somewhat according to institution. At El Reno, it consisted of a supervisory team of three correctional officers, while at both Central State Hospital and Tulsa Psychiatric it consisted of a mental health team. The team at Central State consisted of a psychiatrist, social worker, and nurse, while at Tulsa Psychiatric it was comprised of a psychiatrist, psychotherapist, and assistant therapist. The total population volunteering from each intake group, prior to subject selection, was as follows: Central State Hospital, 68; Tulsa Psychiatric Center, 56, and El Reno, 64.

Instrument

The attitude scale used in the study was the Mach V Scale which measures differences between individuals with regard to attitudes about interpersonal manipulations. The scores reflect the degree of depersonalization of others, cynicism, and what Christie calls "flexible morality." Those who score higher on the scale are called high Machs; those who score lower on the scale are called low Machs. It is a 20 item instrument, forced choice scale which is based on the precepts put forth in Machiavelli's works, The Prince and Discourses. Research has shown that this scale is able to differentiate between individuals who can and cannot influence and/or control others through the use of interpersonal manipulation (Christie, Note 1; Christie and Merton, 1958; and Christie and Geis, 1970). Since literature on the Mach V strongly suggests definite, measurable differences between those individuals who are more successful in interpersonal manipulation and those who are less successful, it seems reasonable to assume that such a scale could measure differences in manipulative ability, if they exist, between clients who receive favorable prognostic ratings and those who do not. There is no other scale available which so directly correlates with one's ability to manipulate interpersonally.

The reliability and consistency of the Mach V Scale has been demonstrated a number of times (Christie, 1959; Exline, Thibaut, Brannon, and Gumpert, 1961; Singer, 1964, and Christie and Geis, 1970). In most samples of the Mach V (Christie and Geis, 1970), the reliability has been .60. However, it was felt by Christie that by constructing a scale which eliminated both response set and social desirability,

decreased reliability would result. He also stated that he and his associates were more interested in devising a scale which made more meaningful discriminations among individuals' behavior, or as Christie states, "separating sheep from goats" (p. 27).

Procedure

A total of 50 potential volunteer subjects were randomly selected from each institutional group during the last week that they met, this was an attempt to insure that group leaders, who serve as evaluators, would have the benefit of knowing the subjects in their group to the fullest extent. The subjects, after being given specific directions (see appendix) were asked to complete the Mach V Scale in groups of ten. After the scales were scored, the incomplete ones were discarded (4 from El Reno, 8 from Central State, and 2 from Tulsa Psychiatric). Remaining scales, over the 40 needed, were then randomly excluded.

The institutional staff functioning as coordinators for the intake groups were utilized as raters. They were given no information regarding research goals, but were asked to individually rate the 40 subjects from their intake group, by forced choice, into two even numbered groups. The first group were those individuals whom they felt had the best chance for a successful adjustment in outside society once they had left the institution, the second group being those whom they felt had less of a chance for a successful adjustment. After the ratings were completed, each rater was administered the Mach V Scale individually.

Analysis of variance and t-tests were utilized where appropriate and t-tests were used for all pair wise comparisons. Analysis of variance was used when three levels were compared. Probability levels for rejecting or accepting hypotheses were conventional.

CHAPTER IV

RESULTS

Means and standard deviations of the Mach scores of subjects at each institution by gender (where appropriate) and by successful-unsuccessful prognosis groups were calculated and are presented in Table 1. Designations of successful-unsuccessful prognoses were determined by the majority opinion of the three raters for each subject, e.g., three successful judgments resulted in a successful prognosis, two successful and one unsuccessful, also resulted in a successful designation, while one successful and two unsuccessful resulted in the subject being in the unsuccessful category, et cetera.

In order to test hypothesis 1, differences in Mach scores between male and female patients (where appropriate) and between subjects judged likely to be successful vs. those judged to be unsuccessful at recovery were tested for each institution individually. This design was used due to the likelihood that gender differences and inherent differences in the clientele from each type of institution might obscure the potential difference between Machiavellianism and prognosis. The data were analyzed with a 2 x 2 (gender vs. prognosis) analysis of variance for patients undergoing treatment at the Tulsa Psychiatric Foundation and Central State Hospital, the results of which

TABLE 1.
 MACHIAVELLIANISM MEANS AND STANDARD DEVIATIONS
 BY INSTITUTIONS, GENDER AND PROGNOSIS GROUP

Prognosis of Successful Adjustment						
Institution	Males			Females		
	N	\bar{X}	S.D.	N	\bar{X}	S.D.
Central State	10	8.10	1.97	10	7.80	3.01
Tulsa Psychiatric	10	9.11	2.57	10	10.20	2.20
El Reno	20	8.26	1.94	-	-	-
Prognosis of Unsuccessful Adjustment						
Central State	10	7.20	3.29	10	7.90	3.32
Tulsa Psychiatric	10	8.90	2.51	10	9.10	3.41
El Reno	20	8.80	3.10	-	-	-

are presented in Tables 2 and 3 respectively. No significant differences were observed for either gender or prognosis, nor were there interaction effects, which indicated that hypothesis 1 was accepted so far as the two institutions were concerned.

TABLE 2.
ANALYSIS OF VARIANCE FOR MACHIAVELLIANISM
BY GENDER AND PROGNOSIS GROUP AT
TULSA PSYCHIATRIC FOUNDATION

Source	DF	SS	MS	F	P
Gender	1	4.07	4.07	.56	n.s.
Prognosis	1	4.22	4.22	.57	n.s.
Interaction	1	2.01	2.01	.27	n.s.
Error	36	264.30	7.34		

TABLE 3.

ANALYSIS OF VARIANCE FOR MACHIAVELLIANISM BY GENDER AND
PROGNOSIS GROUP AT CENTRAL STATE HOSPITAL

Source	DF	SS	MS	F	P
Sex	1	.40	.40	.05	n.s.
Prognosis	1	1.60	1.60	.18	n.s.
Interaction	1	2.50	2.50	.29	n.s.
Error	36	313.00	8.69	-	-

Since only males were available for testing at the El Reno Reformatory, hypothesis 1 was examined for this group using a t-test for independent means between the Mach scores of inmates judged to be making a successful adjustment vs. those judged to be unsuccessful. The difference was not significant ($t(19,21) = .55, p. > .05$), therefore the hypothesis of no difference was tenable.

Since the hypothesis that subjects with successful prognosis would be found to score higher on the Machiavellianism trait was not supported by the data, an additional analysis was performed to determine whether significant differences in Mach scores existed across institutions. Thus a 2 x 3 (prognosis x institution) analysis of variance for Mach scores was performed and is presented in Table 4. As may be seen, there was a trend ($p. < .10$) toward an institutional effect with subjects at Tulsa Psychiatric yielding the highest Mach scores, while

patients at Central State Hospital scored the lowest, with the reformatory inmates manifesting intermediate scores.

TABLE 4.
ANALYSIS OF VARIANCE FOR MACHIAVELLIANISM
BY PROGNOSIS AND INSTITUTION

Source	DF	SS	MS	F	P
Prognosis	1	.99	.99	.13	n.s.
Institution	2	50.22	25.11	3.39	<.10
Interaction	2	8.09	4.04	.55	n.s.
Error	113	836.89	7.41	-	-

Hypothesis 2 was examined by calculating the differences between the Mach scores of subjects judged successful vs. those unsuccessful for each rater independently. Table 5 contains the t-test for dependent means for the five raters with the highest Mach scores, as well as the four raters with the lowest Mach scores. It was expected that the raters with higher Mach scores would judge high and low Machs differentially, while raters with lower Mach scores would not. However, again no significant differences emerged.

TABLE 5.

SUMMARY OF t-TESTS FOR MACHIAVELLIANISM SCORES
BETWEEN SUCCESSFUL AND UNSUCCESSFUL
SUBJECTS FOR EACH RATER

High Mach Raters					Low Mach Raters				
Inst.	\bar{X}_S	\bar{X}_U	T	P	Inst.	\bar{X}_S	\bar{X}_U	T	P
El Reno	8.15	8.85	.86	n.s.	El Reno	8.43	8.58	.18	n.s.
TPF	9.34	9.30	.05	n.s.	El Reno	8.38	8.63	.30	n.s.
CSH	7.90	7.60	.33	n.s.	TPF	9.37	9.28	.09	n.s.
CSH	7.80	7.70	.11	n.s.	TPF	9.26	9.38	.14	n.s.
CSH	7.70	7.80	.11	n.s.					

NOTE: The subscripts s and u for the means represent satisfactory and unsatisfactory, respectively.

In summary, hypothesis 1 was tested by calculating differences in Mach scores between male and female patients (when appropriate) and between those subjects judged likely to be successful vs. those likely to be unsuccessful for each institution. No significant differences were found with regard to either gender or prognosis, nor were there interaction effects. An additional analysis was performed to determine the presence of significant differences in Mach Scores across institutions. There was a trend ($p. < .10$) towards institutional effect with subjects at Tulsa Psychiatric having the highest scores, Central State Hospital the lowest, and El Reno inmates yielding the intermediate scores.

Hypothesis 2 was tested by calculating the differences between the Mach scores of subjects judged successful vs. those judged unsuccessful for each rater independently. No significant findings were found.

CHAPTER V

SUMMARY, CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

The primary problem in this study was to determine if a client's interpersonal manipulative ability was related to a staff's prognostic evaluation of him. An attempt was made to determine if a high Mach client was seen by institutional staff members closest to him as having a good probability for success in life adjustment.

The secondary problem was to ascertain possible differences between the staff-raters' prognostications of the clients, their own Mach scores, and the Mach scores of the clients.

Findings with regard to the primary hypothesis were that there were no significant differences observed for either gender or prognosis, nor were there interaction effects. Therefore hypothesis 1 was accepted. However, a trend was noted with regard to institutional effect with subjects at Tulsa Psychiatric having the highest Mach scores, while Central State Hospital patients scored the lowest, with the El Reno inmates having intermediate scores.

Results with regard to the secondary hypothesis were that no significant differences emerged, therefore hypothesis 2 was also accepted.

Conclusions

It must be concluded from the aforementioned results that a client's Mach score, and therefore his ability to manipulate interpersonally, does not relate to the type of prognostic rating given him by a staff member. Additionally, such prognostic ratings also did not relate to the staff's own Mach scores nor to the Mach scores of those whom he rated.

Discussion

The use of three separate institutions in this study was done in order to gain a general view of the influence of Machiavellianism in both types of social systems (penal and mental health). This investigator felt that in order to make the data collection consistent, all of the limitations set down by the research committees of each institution had to be taken into account in the design of the overall study. For example, the fact that subjects utilized in this study were recruited on a voluntary basis only, was a limitation put forth by two of the institutions' committees. This particular restriction may have excluded high Machs, as indicated in the introduction to the research (see appendix), each group of subjects was informed that their participation was entirely voluntary and had no affect on their institutionalization, either positively or negatively. Such a restriction, therefore, could conceivably rule out participation by high Machs, as past research has shown that they tended to initiate and control social interaction when it was a means towards their achievement of a specific interpersonal goal (Christie and Geis, 1970). Therefore this type of an introduction

might have caused high Machs to drop out of the study, as there was no personal pay off which might have encouraged them to remain as subjects. Such a result would have definitely affected the data because of the relative absence of a larger number of high Machs in the study.

Another intervening variable to be considered was the rather dichotomous design of the rating system which was used to measure the staff's prognostications within each institution. This method may have been too imprecise to generate variability. The rating system, as it was used in the study, did not take into account behavioral variabilities within the subject population, as it merely asked that the subjects be broken down into two general groups, those who were thought to be successful in their life adjustment after their institutionalization had ended and those who were thought to be unsuccessful in such adjustment. One difficulty with such a choice was that a rater had to make a somewhat more generalized judgment in his ratings, although such a choice might not necessarily reflect or measure his actual viewpoint about each individual. A rating system which would give more latitude to account for individual personality variability might be more sensitive and a more accurate representation of exactly where those rated fell in their behavior-prognostic ratings. Additionally, the raters were given the concept of success to mean an individual's ability to adjust in society once he was outside of the institution. Such a definition would be subject to each rater's idiosyncratic ideas of what the word adjustment meant to him. Again, such a generality might be cause for a great deal of variability in terms of what the individual rater was actually rating, as he would provide his own values to the term. A

definitive operational example as to what success specifically meant would have been one step in the clarification of the term for the raters so that there would be more agreement between raters and their ratings, such agreement would thus be also more consistent.

The assumption by this investigator that high Mach behavioral components, on the part of the subjects in the sample, would be seen by the staff raters as being indicative of how they would adjust outside of the institutional setting might also have been in error. Past research with Machiavellianism has indicated that high Machs are quite successful in interpersonal situations, particularly when they are in pursuit of a specific goal (Christie and Boem in Christie and Geis, 1970). However it is only an unsupported assumption that such behavior, when viewed by others, would be interpreted by them in a specific manner, such as possessing a positive prognostic value. Thus there might be additional variability between raters, regarding how they interpret high Mach behavior.

Another assumption in this study which remained unsubstantiated was that of the staff raters actually recognizing or being influenced by high Mach clients within the institutional setting. It may be possible that high Mach behavior would be much more influential between the clients themselves than in interaction between the staff and the clients as this study investigated. Much of the past research on Machiavellianism has shown that high Machs function best in ambiguous interpersonal situations where there was face-to-face interaction (Christie and Geis, 1970). Quite obviously, there would be much more of such interaction between the clients themselves than between clients

and staff. Therefore, the individuals who might be in the best position to be able to both recognize the high's influence and manipulation of the staff would be their fellow inmates or patients, not the professional staff themselves. Such an assumption was more in agreement with the thinking of Goffman (1961) who has pointed out that in many institutional settings clients can hold very influential though unofficial power positions in the social system. In such a case high Mach influence might be much more evident in relation to such unofficial positions, which are also more ambiguous, than it would be in regard to interaction with the official staff. The day-to-day rewards and punishments within the institution might possibly come as much, if not more, from the client social system than from that of the staff. This aspect of interinstitutional interaction again seemed more in keeping with past evidence regarding the high Mach's dependence on direct interaction in order to exert the most influence in interpersonal situations, as client-to-client relationships would be more prone to be. Christie (1970) has described the Machiavellian personality as being "super rational." It was entirely possible that such an individual might, in the settings used, utilize withdrawal and passivity as the most rational means of dealing with institutional life successfully. If this were true, his behavior, as observed by others, would appear to be much different than this investigator might expect of a high Mach, as there was no research which thoroughly investigated high Mach behavior in other than direct, competitive situations in overall neutral, rather than institutional settings. Thus the question remains, how might high Machs behave in more varied settings.

One final question which might be asked with regard to the research presented is whether high Machs are present to any great degree in institutions such as were utilized in this study. It is possible that they are not, or at least that their behavior did not appear to retain the form recognized in past research, most of which has been done outside of institutional settings. The one study done in a mental health setting was by Fontana (1971), who showed a relationship between Machiavellianism and self control in which the staff was able to identify those individuals who were seen as being critical of the staff. However, this study did not investigate the frequency of Machiavellianism, nor the behavior of high Machs within the institution.

Recommendations

Although much of the research on Machiavellianism points to the high Mach's ability to achieve his interpersonal goals in interaction with others, there has been little research in the area of such achievement in specific social systems. This study attempted to ascertain the degree of influence exerted by high Machs in penal and mental health settings. The results did not add nor detract from information already known. It is this author's contention that further study should concentrate in three major areas:

1. Identification of high Machs in such social systems (penal and mental health) as well as an analysis of the general level of Machiavellianism present. A side issue might be to also look at the types of institutions or areas within an institution where there are few or no high Machs present.

2. An analysis of the roles played by high Machs within each institution, determining if their behavior, once they are institutionalized, is significantly different from the Machiavellian behavior described in the past research.
3. An investigation into the degree of influence Machiavellians exert, if any, on fellow clients, staff, and administration as well as additionally answering the question whether such influence is direct or indirect. Most importantly, it can then be ascertained how such influence affects their institutional lives with regard to their role or job as well as evaluations and recommendations for their release.

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APPENDICES

APPENDIX A

ADDITIONAL INTRODUCTORY MATERIAL

Since the end of World War II, treatment concepts in both penal institutions and mental health facilities have been changing rapidly. Innovations in techniques and changes in philosophies have affected patients and inmates as well as the professionals working with them. Jones' (1953) concept of the therapeutic community most clearly exemplifies the kind of change that has taken place in the past twenty years. Because of increased social pressures on both penal institutions and mental health facilities, more intensive and individualized interaction between the staffs and their clients has come about. Prior to this time, both psychiatric and penal institutions were purely custodial in nature. The interaction flowed one way only, from the staff to their "charges" (Frank, 1961).

With regard to penal reform, Sutherland and Cressey (1960) stated that increased emphasis on sociological and psychological theories explaining the basis for crime modified the basis on which all correctional institutions have stood for the past 150 years in the United States. Current theorists emphasized criminal reform as well as research, with the emphasis being placed on understanding and

assistance rather than punishment. Contemporary thinkers maintained that criminal behavior was the result of environmental forces, thus such behavior could be modified, but only by non-punitive methods which did away with the idea of punishment for its own sake. There was a great deal of controversy regarding such methods, and their acceptance was still limited and subject to a great deal of suspicion.

Penal as well as mental hygiene reform has continued to expand and gain wider acceptance among both professionals and laymen. Menninger (1968) stated that it was an accepted fact that the recovery and discharge of patients in his psychiatric hospital was, "directly and intimately connected with the quality as well as the quantity of the personnel" (p. 214). In speaking to the prison administrators in this country, he said that such a relationship was also true in prisons. He recommended that prisons institute diagnostic centers; pre and post release programs, and more equitable probation and parole procedures. His conclusion was that only such humanely oriented services, which treated the offender as an individual who was allowed to change, could truly make rehabilitation effective.

In this same vein, Sutherland and Cressey (1960) stated:

The efforts to promote a closer relationship between inmates and staff are based on the conviction that open contacts between prisoners and staff are better than secret ones between just the inmates themselves. This concept is based on the conviction that reformation is a process of assimilation of the mores of the outside world and that such assimilation is promoted by contact with that culture rather than isolation from it. (p. 456)

In specifying what was meant by increased cultural contact, the authors stated that guards had the most opportunity for helping to change the attitudes of the inmates. They encouraged closer contact

between the two groups so that maintaining discipline was secondary to their role of individualizing their relationship with the inmates and even becoming role models for these men.

Ohlin (Note 10), in a Russell Sage Foundation manual, felt that closer contact between staff members and inmates assisted greatly with evaluation and prediction. Closer staff-inmate relations are also considered important by other penologists, among the most vocal of these are: Robison (1960), Martin (1954), and Sykes (1958), all of whom emphasized in-depth staff involvement to bring about more effective rehabilitation. They all criticized the standard prison isolation, rigid systematization, and lack of identity which they felt was destructive to rehabilitative goals. They felt that increased interaction and communication makes for effective penal reform as well as contributes to better results in evaluation, treatment, and release.

Similar changes have occurred in the philosophy and treatment of the mentally ill. The concept of the therapeutic community, also known as Milieu therapy, was central to many mental health innovations. Again closer interaction between clients and staff was the main emphasis. Frank (1961) in discussing the patient-community treatment concept stated:

Patient-staff involvement is one of the key terms now; more small group methods have been utilized as well as more individual contact. The staff now encourages 'self control'. The hospital situation has become more democratic (p. 197).

During this same period, the late forty's, tranquilizing drugs were also developed. These drugs enabled a greater number of hospitalized patients to participate in rehabilitative programs designed for

assisting their re-entry into the community. The increased emphasis on small group methods was another advance during this period which promoted greater numbers of patients to be treated. After overcoming initial criticism, such methods eventually became accepted, and at times preferable to individual treatment. Frank (1961) felt that small group methods provided for greater patient-staff interaction which in turn improved the communication network of the entire hospital. As a result, he felt that patients became more aware of themselves and the world. Soon ward meetings were added which gave the patients a greater voice in their own treatment as well as increased their interaction with others in general. As a result of these changes, a greater variety of non-medical personnel were brought in as ancillary staff. Whittington (1966) felt that changes such as those previously mentioned actually revolutionized hospital psychiatric practice, especially since so many of the time consuming hospital management problems became less frequent. Thus the staff was able to have greater participation in interaction with patients. Jones (1968), in a later work, cited the hospital change from that of custodial to motivational as the primary factor in making patients' individuality more valued which in turn encouraged their self-determination. Thus the patient population as a whole felt increased responsibility for their own rehabilitation.

As for the professionals' role in light of these changes, Jones felt that the new patient environment in itself became training for the staff, he explained:

They (the patients) are, moreover, in a position to make the staff aware of its own shortcomings, which may be based on a blind

adherence on tradition, ignorance of the patient world, and the abuse of the professional role. These shortcomings, often unconsciously determined, have brought advantages to the staff rather than to patients (p. 43).

As the patients were treated more as individuals, hospital staffs found themselves unable to continue with the traditional triad of treatment personnel: psychiatrist, psychologist, and social worker. Parapsychiatric staff soon were added to meet the expanded needs of patients. Specialties such as occupational, recreational, and music therapy soon became an integral part of the broader spectrum of patient services.

As these services became accepted, and in fact were considered increasingly important to the treatment of the mentally ill, they were combined with the overall treatment program. As more patients responded positively to the increased services, the logical outcome was placement and treatment of more mentally ill individuals back in their own community. Patients therefore stayed in state hospitals a shorter length of time, if they were placed there at all. Many more were released back into their communities to resume their lives. As community mental services grew, community based assistive services for these individuals increased as well. Thus the community mental health movement evolved. Techniques and goals of psychiatric personnel continued to change, as more patients and practitioners demanded that mental health services be geared towards patient needs with regard to readjustment. Ancillary services such as day hospitals, suicide prevention centers and half way houses were the next natural outcome for community based services. Glasscote (1971) stated that psychiatry, more than other

specialty, had to find even more ways to augment their manpower supply due to increasing demand for services, and thus began using an even broader range of sub-specialties.

APPENDIX B

MACH V ATTITUDE INVENTORY

You will find 20 groups of statements listed below. Each group is composed of three statements. Each statement refers to a way of thinking about people or things in general. They reflect opinions and not matters of fact--there are no "right" or "wrong" answers and different people have been found to agree with different statements.

Please read each of the three statements in each group. Then decide first which of the statements is most true or comes the closest to describing your own beliefs. Circle a plus (+) in the space provided on the answer sheet.

Just decide which of the remaining two statements is most false or is the farthest from your own beliefs. Circle the minus (-) in the space provided on the answer sheet.

Here is an example

	<u>Most True</u>	<u>Most False</u>
A. It is easy to persuade people but hard to keep them persuaded.	+	-
B. Theories that run counter to common sense are a waste of time.	(+)	-
C. It is only common sense to go along with what other people are doing and not be too different.	+	(-)

In this case, statement B would be the one you believe in most strongly and A and C would be ones that are not as characteristic of your opinion. Statement C would be the one you believe in least strongly and is least characteristic of your beliefs.

You will find some of the choices easy to make; others will be quite difficult. Do not fail to make a choice no matter how hard it may be. You will mark two statements in each group of three--the one that comes the closest to your own beliefs with a + and the one farthest

from your beliefs with a -. The remaining statement should be left unmarked.

Do not omit any groups of statements.

1. A. It takes more imagination to be a successful criminal than a successful business man.
 B. The phrase, "the road to hell is paved with good intentions" contains a lot of truth.
 C. Most men forget more easily the death of their father than the loss of their property.
2. A. Men are more concerned with the car they drive than with the clothes their wives wear.
 B. It is very important that imagination and creativity in children be cultivated.
 C. People suffering from incurable diseases should have the choice of being put painlessly to death.
3. A. Never tell anyone the real reason you did something unless it is useful to do so.
 B. The well-being of the individual is the goal that should be worked for before anything else.
 C. Once a truly intelligent person makes up his mind about the answer to a problem he rarely continues to think about it.
4. A. People are getting so lazy and self-indulgent that it is bad for our country.
 B. The best way to handle people is to tell them what they want to hear.
 C. It would be a good thing if people were kinder to others less fortunate than themselves.
5. A. Most people are basically good and kind.
 B. The best criteria for a wife or husband is compatibility-- other characteristics are nice but not essential.
 C. Only after a man has gotten what he wants from life should he concern himself with the injustices in the world.
6. A. Most people who get ahead in the world lead clean, moral lives.
 B. Any man worth his salt shouldn't be blamed for putting his career above his family.
 C. People would be better off if they were concerned less with how to do things and more with what to do.
7. A. A good teacher is one who points out unanswered questions rather than gives explicit answers.
 B. When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons which might carry more weight.

- C. A person's job is the best single guide as to the sort of person he is.
8. A. The construction of such monumental works as the Egyptian pyramids was worth the enslavement of the workers who built them.
B. Once a way of handling problems has been worked out it is best to stick to it.
C. One should take action only when sure that it is morally right.
9. A. The world would be a much better place to live in if people would let the future take care of itself and concern themselves only with enjoying the present.
B. It is wise to flatter important people.
C. Once a decision has been made, it is best to keep changing it as new circumstances arise.
10. A. Barnum was probably right when he said that there's at least one sucker born every minute.
B. Life is pretty dull unless one deliberately stirs up some excitement.
C. Most people would be better off if they controlled their emotions.
11. A. Sensitivity to the feelings of others is worth more than poise in social situations.
B. The ideal society is one where everybody knows his place and accepts it.
C. It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.
12. A. People who talk about abstract problems usually don't know what they are talking about.
B. Anyone who completely trusts anyone else is asking for trouble.
C. It is essential for the functioning of a democracy that everyone votes.
13. A. It is a good policy to act as if you are doing the things you do because you have no other choice.
B. The biggest difference between most criminals and other people is that criminals are stupid enough to get caught.
C. Even the most hardened and vicious criminal has a spark of decency somewhere within him.
14. A. All in all, it is better to be humble and honest than to be important and be dishonest.
B. A man who is able and willing to work hard has a good chance of succeeding in whatever he wants to do.
C. If a thing does not help us in our daily lives, it isn't very important.

15.
 - A. A person shouldn't be punished for breaking the law that he thinks is unreasonable.
 - B. Too many criminals are not punished for their crimes.
 - C. There is no excuse for lying to someone else.

16.
 - A. Generally speaking, men won't work hard unless they are forced to do so.
 - B. Every person is entitled to a second chance, even if he commits a serious mistake.
 - C. People who can't make up their minds are not worth bothering about.

17.
 - A. A man's first responsibility is to his wife, not to his mother.
 - B. Most men are brave.
 - C. It is best to pick friends who are intellectually stimulating rather than ones it is uncomfortable to be around.

18.
 - A. There are very few people in the world worth concerning oneself about.
 - B. It is hard to get ahead without cutting corners here and there.
 - C. A capable person motivated for his own gain is more useful to society than a well meaning but ineffective one.

19.
 - A. It is best to give others the impression that you can change your mind easily.
 - B. It is a good working policy to keep on good working terms with everybody.
 - C. Honesty is the best policy for everybody.

20.
 - A. It is possible to be good in a respect.
 - B. To help oneself is good to help others is even better.
 - C. War and threats of war are unchangeable threats of human life.

APPENDIX C

INTRODUCTION TO STUDY

My name is Larry Ziegler and I'm doing research here from the University of Oklahoma.

I would like you to fill out a form as a part of this research. It will have nothing to do with your length of stay here, nor with when you might be released. It is purely for my research.

On this form there are no right or wrong answers and you will not be graded on it.

After I pass out the forms, read the instructions on the front; if you have any questions, please ask me.