A Study of the Relationship between Machiavellianism and Mutual Gaze in the Therapist-Client Dyad

James Paul Kelly
Western Michigan University

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A STUDY OF THE RELATIONSHIP BETWEEN
MACHIAVELLIANISM AND MUTUAL GAZE
IN THE THERAPIST-CLIENT DYAD

by

James Paul Kelly

A Thesis
Submitted to
The Graduate College
in partial fulfillment
of the
Degree of Master of Arts

Western Michigan University
Kalamazoo, Michigan
August 1977
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James Paul Kelly
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INTRODUCTION

Machiavellianism

Richard Christie is the social psychologist primarily responsible for the development of a series of psychological tests intended to measure the extent to which an individual agrees with the ideas of Niccolo Machiavelli, 1469-1527 A.D., author of The Prince and The Discourses. Machiavelli's writings are not abstract theoretical or philosophical comments on mankind but rather are concise manuals of the techniques and strategies of acquiring and maintaining political power. He presented The Prince to Lorenzo Di Medici of Florence, Italy, as a gift intended to convey specific political and military strategies in gaining power over Italy's 16th century neighbors.

"Machiavellianism" is assumed by Christie (Christie & Geis, 1970) to include (1) a relative lack of affect in interpersonal functioning, (2) little concern for conventional morality, (3) a gross lack of overt psychopathology and (4) a low ideological commitment. The current study is concerned primarily with the first assumption. The supposition is that as one becomes emotionally involved with another person, he finds it increasingly more difficult to treat that person as an object to be manipulated. Christie (1970) states:

Once empathy occurs, it becomes more difficult to use psychological leverage to influence others to do things they may not want to do.
Christie characterized the Machiavellian personality as being highly manipulative and having low view of his fellow man. The Machiavellian (Mach) has been traditionally regarded as someone who views and manipulates others for his own purposes. Christie set out to determine whether the person agreeing with Machiavelli behaves differently than the person who disagrees with him (Christie & Geis, 1970).

Christie selected specific statements from Machiavelli's writings as scale items. The statements were selected on the basis of their clear, unambiguous meanings. Some statements were presented in reverse form and some statements were condensed versions of Machiavelli's expanded reflections. The construction of the scale began in 1954. The initial form of the Mach questionnaire consisted of 71 statements scored in an agree-disagree format (Christie & Geis, 1970). The Mach V Attitude Inventory, a forced-choice format, is the most recent version and was the form employed in the present study.

The Mach V (see Appendix A) is composed of 20 items, each consisting of 3 one-sentence statements. The directions instruct the respondent to decide which statement is most true or comes closest to his own beliefs. This is indicated by circling the plus (+) sign after the statement. Next, the respondent is to decide which of the two remaining statements is most false or counter to his own beliefs. This is indicated by circling the minus (-) sign after the statement. The remaining statement is left unmarked. The highest
possible score on any item is attained by endorsing the Mach statement and rejecting the matched opposite statement. The score for any single item can range from 1 for strong disagreement to 7 for strong agreement. A constant of 20 is added to the total score of all 20 items. Thus, the range for the entire inventory is 40 to 160, with 100 as the theoretical neutral point (Christie & Geis, 1970).

Christie (1970) found the following results when presenting the Mach V to 1744 college students:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasion Males (764)</td>
<td>99.27</td>
<td>11.17</td>
</tr>
<tr>
<td>&quot; Females (832)</td>
<td>95.60</td>
<td>10.09</td>
</tr>
<tr>
<td>Non-white Males (62)</td>
<td>98.17</td>
<td>10.38</td>
</tr>
<tr>
<td>&quot; Females (86)</td>
<td>94.70</td>
<td>11.60</td>
</tr>
</tbody>
</table>

Studies examining the relationship between Mach scores and scores on various scales of intellectual ability (Singer, 1964; Wrightsing & Cook, 1965; Christie, 1970) show no significant correlation. Correlational studies of Mach scores and various scales of authoritarianism resulted in contradictory and ambiguous findings, largely the fault of out-dated measures of authoritarianism.

A factor analysis by Christie and Lehmann (1970) isolated 5 of the 20 items of the Mach V considered to be clear references to tactics an individual might employ rather than a description of attitudes or orientation. The Mach statements in all 5 items clearly indicate tactics of interpersonal functioning or ways in which one conducts himself with others. Mach Tactics, as these 5 items are
collectively referred to, is considered a factorially pure measure of interpersonal manipulation.

Abramson (1973) found that counseling psychology graduate students scored higher on the 5 Mach Tactics items than did students in areas of psychology other than counseling. Abramson also reports a negative correlation between the Mach V scores and all five dimensions of the Carkhuff Scales for Assessment of Interpersonal Functioning given to the counseling graduate students. A significant negative correlation ($r = -.64, p < .05$) was found between Mach Tactics and the Empathy dimension of the Carkhuff scales. This finding supports Christie's (1970) assumption that the High Mach is likely to lack emotional or empathic involvement in interpersonal functioning. The author goes on to suggest that High Mach therapists are likely to be ineffective with clients since High Mach individuals are inclined to ignore the emotional states of others.

In an analysis of 38 separate experimental studies, Geis and Christie (1970) suggest that High Mach individuals are likely to be more effective than Low Machs in face-to-face interactions which allow latitude for improvisation. Their effectiveness includes the tendency to manipulate more, win more, persuade others more and be persuaded less than Low Machs. Abramson (1973) extends this discussion to include the possibility of High Mach individuals being attracted to counseling because of its similarity to situations in which they previously experienced success. The implications of such an occurrence warrant further investigation in this area.
In a study of Machiavellianism and attractiveness, Singer (1964) discovered that males typically score higher on Mach inventories than do females. Singer's research also indicates that women are able to manipulate without being Machiavellian. For instance, holding academic ability constant, Singer found college grades to be highly correlated to Mach scores for men, but not for women. However, females' grades were found to be correlated with attractiveness.

High Mach individuals were found to maintain mutual gaze with an interrogator relatively more than Low Machs while denying their actual participation in an unethical act (Exline et al, 1970).

This study discusses the High Mach in terms of his initiative and competence in social interactions rather than his moral superiority or inferiority. The authors interpret the results to support the argument that personality factors mediate the use of gaze under differential situational inducements to conceal information.

Gaze and Mutual Gaze

The roles of gaze, mutual gaze and facial expressions have been the objects of investigation by literally hundreds of studies over the past 25 years. This section presents a brief survey of the more recent research exploring the use of gaze and facial expressions in human interactions. Throughout this text, mutual gaze (MG) refers to measurement of eye contact or simultaneous glances by two persons engaged in an interaction.

The use of gaze and facial expressions in interpersonal func-
tioning has been explored by numerous experimenters. Boucher and Ekman (1975) found that the value of a specific facial area (1- forehead-brow, 2- eyes-lids, 3- mouth-cheeks) in the judgement of emotion is dependent upon the emotion being judged. One facial area may be a clear indicator of one emotion while being a very poor indicator of another emotion.

In a study using video taped presentations of therapy sessions with no audio playback, Shapiro et al (1968) found that therapeutic variables of genuineness, empathy and warmth can be reliably rated by untrained judges, and that specific cues used for such ratings were facial expressions. High levels of agreement found within and between judges suggests that therapeutic attitudes are communicated through nonlinguistic behavior. This supports the suggestion that clinicians should be aware of their facial expressions.

Burton (1973) cites Goffman, Birdwhistell and others to support his point that a wealth of information is conveyed through facial expression. Not only does a therapist's viewing his client's face enhance his understanding of the client, but Burton suggests that psychotherapists should make use of their faces as therapeutic tools.

Results of a study by Ellsworth and Carlsmith (1968) indicate that the amount of MG in a dyadic interaction influences a subject's affective reaction. The direction of this influence (positive-negative) depends upon whether the verbal content is favorable or unfavorable to the subject.

Kleinke and Pohlen (1971) studied the affective responses of
subjects as a function of another person's gaze and cooperativeness in a game playing situation. Confederates manipulated independent variables of gaze-no gaze and cooperativeness-competitiveness. Subjects rated cooperative partners higher than competitive partners on a 1-7 dislike-like questionnaire, but there was no significant difference associated with his gaze. A second result of the experiment indicated that subjects in the gaze condition had significantly higher heart rates than those in the no-gaze condition. However, these subjects reported no significant amount of "tenseness" during the gaze condition.

In an exploration of visual interaction, Exline (1963) determined that women looked significantly more at one another than did men while speaking, being spoken to, and while simultaneous glances were measured. Kendon (1967) found that the direction of a person's gaze during a social interaction serves as a signal for the regulation of the speaker role. The speaker and auditor exchange roles by the speaker ending his utterance by looking at the auditor with a sustained glance. The auditor characteristically looks away when he begins to speak. Attention signals, agreement signals, short questions and attempted interruptions are observed as changes in gaze direction.

Argyle and Dean (1965) identified a number of functions which gaze may serve in social interactions. These are: 1) information seeking, 2) signalling that the channel is open, 3) concealment and exhibitionism, 4) establishment and recognition of social rela-
tionship and 5) the affiliative conflict theory. This last function attempts to explain the relationship between intimacy and mutual gaze by considering other factors, such as physical proximity and amount of smiling. These authors conclude that intimacy in social interactions is governed by both approach and avoidance mechanisms and that an equilibrium level of intimacy is maintained between two persons engaged in an interaction. Changing one of the contributing variables of gaze, smiling or physical proximity affects the equilibrium condition. For example, Argyle and Dean found that reducing the physical distance between two persons resulted in a reduction of their mutual gaze.

In a more recent study, Patterson (1975) refutes Argyle and Dean's (1965) equilibrium theory of mutual gaze and interpersonal distance on methodological grounds. After a detailed analysis of the method of measuring gaze in Argyle and Dean's study, Patterson argues that mutual gaze only appears to increase with increased interpersonal distance. The distance between the subjects and observers also increased using this technique and resulted in overestimation of mutual gaze due to decreased discriminability.

Dietch and House (1975) manipulated interpersonal distances and examined mutual gaze, intimacy of actual self-disclosures and subject reports of discomfort. Self-disclosures were less intimate at close distances but subjective reports of discomfort did not vary across the distance variable. These authors suggest that mutual gaze can serve to mediate the intimacy of a given interpersonal in-
teraction, when it is impossible to alter distance. In another study (Ellsworth and Ross, 1975), male and female undergraduate college students delivered a personally revealing monologue to a same-sex (confederate) listener. The listener manipulated the independent variable of gaze within these four conditions: 1) continuous direct gaze, 2) direct gaze contingent upon intimacy of statements, 3) continuous gaze aversion and 4) gaze aversion contingent upon intimacy of statements. Direct gaze conditions led to increased intimacy with females but reticence with males. Gaze aversion conditions resulted in the exact opposite effect.

A study by Pellegrini et al. (1970) tested the assumption that if physical proximity is held constant, an assigned approval-seeking role will enhance MG while an assigned approval-avoiding role will decrease MG. Results indicate significantly higher frequency and duration of MG for the approval-seeking than for the approval-avoiding or control groups.

Studies examining the effects of intimacy of topic on the amount of gaze (Exline et al., 1965; Schulze and Barefoot, 1974) indicate that increased intimacy of topic causes a reduction in the subject's gaze while speaking. Although the subject's gaze while listening was not affected, the overall effect of increasing the intimacy of topic was to reduce the amount of mutual gaze in dyads.

While Low Machs were found by Exline et al. (1970) to look less at an experimenter after being implicated in deception by a confederate, High Mach individuals gazed just as much as before the
accusation. This supports Christie's (1970) assumption that Machiavellians are cool "operators" and manipulators of others in interpersonal interactions. Argyle and Cook (1976), interpreting Exline's results, suggest that Machiavellians do not gaze for purposes of affiliation but rather to collect information for purposes of manipulation and to create a facade designed to deceive others.

Purpose

The purpose of this study is to determine the relationship between the Machiavellian characteristics of a therapist and the mutual gaze between that therapist and his client in an initial counseling interview.

The research studies cited in the two previous sections of this chapter suggest to this experimenter that a positive relationship exists between certain Machiavellian personality characteristics of a therapist and the mutual gaze he and his client engage in during a counseling session. Stated simply, it is the hypothesis of this study that there is a positive correlation between Mach Tactics (MT) and mutual gaze (MG) in the therapist-client dyad.

The High Mach, assumed to lack affective or emotional involvement in interpersonal functioning (Christie, 1970) has been shown to maintain MG with an experimenter while denying his actual act of cheating (Exline et al., 1970). If a High Mach lacks emotional involvement with others, it is likely that he would lack empathic understanding as defined by Truax (1961):
Accurate empathy involves both the sensitivity to current feelings and the verbal facility to communicate this understanding in a language attuned to the client's current feelings.

As reported by Abramson (1973), the MT of a student counselor have been shown to be significantly negatively correlated with Empathy on the Carkhuff scales. In the same study, student counselors were found to score consistently higher on MT than students in areas of psychology other than counseling.

It would seem that the High Mach therapist would be likely to avoid topics of intimacy if he is cool, distant and lacking in empathy. The reduced intimacy of topic has been shown to cause mutual gaze to increase, if physical proximity is held constant (Pellegrini et al., 1970).

An analysis of the studies referred to above leads this experimenter to hypothesize that more MG will occur between a High Mach therapist and his client than between a Low Mach therapist and his client.
METHOD

Subjects

The therapists in this study were twelve student volunteers from a graduate course in Clinical Psychology designed to provide instruction in individual behavior change. This particular course is the first in a sequence of courses in psychotherapy techniques. Students from this specific course were desired because the therapeutic technique being studied lent itself to the experimental design. Employing this technique, therapists sit facing their clients at a close but comfortable distance. The format of the course was developed following a client-centered therapeutic approach to individual counseling (Rogers, 1951). The central focus is empathic understanding, i.e., the accurate reflection and clarification of the client's feelings. Except for their classroom participation, the graduate student volunteers were inexperienced in this therapeutic modality.

The clients in this study were twelve student volunteers from two sections of the same second level course in interpersonal communication theory.

Neither the clients nor the therapists were aware of the gaze and Machiavellianism factors being examined. The subjects were unaware of who their partner might be until the time of the video taping. All subjects volunteering were told that their spontaneous interaction would be recorded on video tape. All subjects received
extra course credit for their participation in this study.

Procedure

Arrangements were made by telephone for the subjects to meet with the experimenter (E) at the video taping studio in their pre-arranged pairs. The therapists were instructed to be prepared to conduct an initial counseling interview staying basically within the framework of the empathy model they were studying. The clients were instructed to be prepared to openly discuss problem areas in their current lives. Problems of a realistic nature were to be discussed in confidence.

After arriving at the studio, the client and therapist were introduced and seated directly across from one another at a distance of approximately 5 feet, measured head-to-head. Slight variations in this distance were the result of different subjects assuming different postures. The distance between the chairs remained constant for all therapist-client pairs so as to eliminate the potentially confounding effects of variation in interpersonal distance on gaze (Argyle and Dean, 1965). No barrier of any kind was placed between the subjects. The subjects were instructed to assume whatever posture they found comfortable in the chair without moving the chair from its predetermined position.

Both subjects were notified that the first 30 minutes of the session were to be video taped. At the 30 minute mark, the E would signal the subjects to close the session whenever it was convenient.
Each subject was asked to complete the Mach V Attitude Inventory immediately following the interview, although only the scores of the therapists were of interest in this experiment.

Two video cameras were set in static position throughout the interview, one directly above and slightly behind the head of each subject. Each camera was directed into the eye region of the face of the subject seated opposite. The zoom and focus of each camera was set before the session began and the cameras operated unattended throughout the interview. In case the camera needed readjusting while the interview was in progress, the subjects were forewarned to continue the session without interruption while the E made the adjustment.

The cameras and a boom microphone, positioned overhead and between the subjects, were in clear view of both subjects. No other distracting devices, i.e. clocks, windows, doors, etc., were within view. The microphone was present merely for the purpose of creating a complete audio-visual studio appearance. Neither subject was aware that the verbal interaction had no direct bearing on this experiment.

Separated from the subjects by a screen, a video tape control panel with a special effects generator received input from both cameras and provided a split screen display. This device was employed because of its capability of recording the direction of gaze of each subject's eyes simultaneously. The monitor image was split horizontally, i.e. the client's eyes on the top half, the thera-
pist's eyes on the bottom half.

At a later time, two separate 2-minute long segments were edited from each original 30-minute recording onto a master tape. The segments edited were the tenth to twelveth minutes and the twentieth to twenty-second minutes of each 30-minute tape. The 2-minute segment length was decided upon to provide an adequate sample of an exchange between the subjects. A shorter length segment would increase the chance of the sample consisting entirely of one person's monologue. Such a situation would provide limited information on the gaze of the subjects, since individuals have been observed to gaze more while listening than while speaking (Kendon, 1967). Placing the segments at 10 and 20 minutes into the session was done to sample the interview while in progress, avoiding the often distracting and awkward processes of initiating and closing a counseling interview.

Three trained male judges, unaware of the purpose of the study, separately recorded the gaze of each subject's eyes at a time, the other half of the monitor screen being covered to avoid distraction. The judges were instructed to depress the remote switch to activate the pen-recorder when the subject appeared to be gazing into the eye region of the face of the second subject. When the subject broke his gaze, the judge was to release the switch. This caused the pen to return to its rest position. The judges were allowed to practice this task until they were ready to begin.

Each two-minute segment was preceded by an "Intermission"
sign and identified by a numerical code introduced on the audio channel of the video tape. One segment appeared in two places on the master tape to provide a basis for intrajudge (test-retest) reliability analysis. Thus, with two segments from each of the twelve sessions and one segment appearing twice, the judges viewed 25 segments in all.

The segments appeared on the screen instantaneously, and the E activated a motor to feed the recording paper (at the rate of 1 cm per second) through the pen-recorder. At this same instant, the judge began his recording of the direction of gaze of the subject appearing on the monitor screen.

The gaze of all subjects appearing on the top half of the screen (clients) was recorded first. After the paper was rewound to the beginning and the video tape was rewound to the first segment, the gaze recording process was repeated for the subjects appearing on the bottom half of the screen (therapists). The toggle switch incorporating the resistor in the remote switch circuit was activated for this second run to cause the pen to travel a shorter distance across the recording paper. This resulted in a second distinct recording on the paper. The color of the ink in the stylus was changed at this time to visually accentuate the distinction between the two recordings appearing on the same section of paper.

When all three judges had recorded the gaze from all 25 segments, the E measured each gaze segment for each subject. Since
recordings of both the therapist and client from any given session appeared on the same section of recording paper, it was possible to measure periods of mutual gaze by determining points when each subject's gaze was "on". The frequency and duration of gaze and mutual gaze were determined and recorded. From the basic measurements of frequency and duration of gaze over the 2-minute segment, three derivations were computed. These were: 1- Frequency of Gaze (total number of glances/2 minutes) 2- Average Length of Glance (total duration of gaze/total number of glances) 3- Overall Duration of Gaze (total duration of gaze/2 minutes).

The intrajudge reliability of each judge was computed. The data collected by the least consistent judge were eliminated. An interjudge reliability analysis was computed for the two remaining judges. The data collected by the judge with the highest intrajudge reliability were used for the correlational analysis with the Mach V scores.

Apparatus & Setting

The video taping studio was a 12 ft. by 8 ft. area sectioned off by sheets hung from the ceiling of a university classroom. Flood lamps were employed to counteract the shadows cast by the indirect overhead fluorescent lighting. Armless desk chairs were used to eliminate the possibility of a subject leaning on one arm and drifting off camera.

The recording equipment consisted of two Sony Videocameras
model AVC-4200, a Sony special effects generator model SEG-1 and a Sony video tape recorder model AV-3650. A Sony video tape editor model AV-8650 was used to create a master tape of segments edited from the original tapes of the interview sessions. All video tapes used were ½ in. Scotch brand one hour tapes.

The judges viewed the master tape on a Magnavox monitor with a 23 in. diagonal screen located in a university technical laboratory. The playback to the monitor was provided by a second video tape recorder in the Sony AV-3600 series.

The pen-recorder used to record the frequency and duration of each subject's gaze was a Bruel-Kjaer level recorder and sine-random generator. The generator was modified by the introduction of a resistor in the circuit of the remote switch which activated the pen-recorder. The resistor could be by-passed or incorporated by means of a two-position toggle switch, thus providing two distinct pen-recording levels on the recording paper.
RESULTS

All correlational test results reported in this section were computed using the Pearson correlation formula.

A test-retest reliability analysis of the measurements of the direction of gaze collected by the three judges was performed. It is evident that all three judges were highly consistent in the "on-off" determination of gaze direction. Judge #1 and Judge #3 were equally consistent ($r = .999$). The data collected by the judge with the lowest intrajudge reliability (Judge #2, $r = .992$) were omitted from the remaining correlational tests.

An analysis of interjudge reliability was performed between Judge #1 and Judge #3. The result indicates a high degree of reliability ($r = .992$).

Three separate variables of interest were derived from the basic measurements of frequency and duration of gaze. These variables are 1- Frequency of Gaze (glances/min), 2- Average Length of Glance (seconds/glance) and 3- Overall Duration of Gaze (seconds/min). The derivations and their group means are reported in Table 1. A breakdown of the Male-Female combinations of therapists and clients is presented in Appendix B. Male-Female comparisons of gaze and MG are shown in Appendix C.

The scores of all subjects on the Mach V Attitude Inventory are reported in Table 2. The scores of both therapists and clients are reported for the purpose of comparison. However, only the therapists'
Table 1
Means and Standard Deviations of Gaze Variables

<table>
<thead>
<tr>
<th></th>
<th>Frequency of Gaze (glances/min)</th>
<th>Average Length of Glance (seconds/glance)</th>
<th>Duration of Gaze (seconds/min)</th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
</tr>
<tr>
<td>Therapist</td>
<td>2.729</td>
<td>2.095</td>
<td>43.438</td>
</tr>
<tr>
<td>Client</td>
<td>3.541</td>
<td>3.622</td>
<td>6.814</td>
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Table 2

Mach V Attitude Inventory and Mach Tactics Scores for Therapists and Clients

<table>
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<th>Subjects</th>
<th>Mach V Attitude Inventory</th>
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<tr>
<td></td>
<td></td>
<td>Range</td>
<td>Mean</td>
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<tr>
<td>T (12)</td>
<td></td>
<td>86-118</td>
<td>98.8</td>
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<tr>
<td>C (12)</td>
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<td>Total (24)</td>
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<table>
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<th>Subjects</th>
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<td></td>
<td></td>
<td>Range</td>
<td>Mean</td>
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<tr>
<td>T (12)</td>
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<td>13-25</td>
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<td>C (12)</td>
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<tr>
<td>Total (24)</td>
<td></td>
<td>13-25</td>
<td>18.5</td>
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</table>
scores were compared with measures of gaze and mutual gaze to determine possible relationships. No significant difference was found in a comparison of the Mach V scores of the therapists with those of the clients. However, clients were found to score significantly higher than therapists on the five MT items ($t = 2.104, p < .05$). Male-Female comparisons on the Mach V appear in Appendix D.

The results of the correlational computations examining the relationship between therapist Machiavellian characteristics and therapist gaze, client gaze and MG appear in Tables 3, 4 and 5. The data collected by Judge #1 were used in this analysis.

The results reported in Table 5 do not support the hypothesis of this study. The relationship between the MT score of a therapist and MG ($r = -.20$) is obviously a negative one. None of the results reported in Tables 3 through 5 are significant at $p < .05$. Fisher's Z-transformations and t-values computed for all correlational results were also non-significant at $p < .05$. 

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Table 3

Correlation Results
For
Mach Scores vs. Therapist Gaze

<table>
<thead>
<tr>
<th>Therapist Gaze Variable</th>
<th>Therapist Mach V</th>
<th>Therapist MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (glances/min)</td>
<td>+0.036</td>
<td>+0.016</td>
</tr>
<tr>
<td>Avg. Length (sec/glance)</td>
<td>-0.048</td>
<td>-0.082</td>
</tr>
<tr>
<td>Duration (sec/min)</td>
<td>-0.124</td>
<td>+0.013</td>
</tr>
</tbody>
</table>

All results are non-significant at $p < .05$. 

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Table 4

Correlation Results
For
Mach Scores vs. Client Gaze

<table>
<thead>
<tr>
<th>Client Gaze Variable</th>
<th>Therapist Mach V</th>
<th>Therapist MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (glances/min)</td>
<td>+0.016</td>
<td>-0.258</td>
</tr>
<tr>
<td>Avg. Length (sec/glance)</td>
<td>-0.247</td>
<td>+0.003</td>
</tr>
<tr>
<td>Duration (sec/min)</td>
<td>-0.060</td>
<td>-0.277</td>
</tr>
</tbody>
</table>

All results are non-significant at p < 0.05.
Table 5

Correlation Results
For
Mach Scores vs. Mutual Gaze

<table>
<thead>
<tr>
<th>Mutual Gaze Variable</th>
<th>Therapist Mach V</th>
<th>Therapist MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (glances/min)</td>
<td>-0.036</td>
<td>-0.348</td>
</tr>
<tr>
<td>Avg. Length (sec/glance)</td>
<td>-0.053</td>
<td>+0.076</td>
</tr>
<tr>
<td>Duration (sec/min)</td>
<td>-0.009</td>
<td>-0.206</td>
</tr>
</tbody>
</table>

All results are non-significant at $p < .05$
DISCUSSION

The high levels of agreement within and between judges found in this study support previous findings (Stephenson et al., 1973; Goldstein et al., 1976) that observers can reliably record gaze from split screen video tape presentations. The use of video tape equipment, as used in this study, allows a more natural interaction between subjects than if one subject were a continuously gazing confederate (Exline, 1963) or a confederate who manipulated various gaze conditions (Ellsworth and Ross, 1975).

Goldstein et al. (1976) reported an advantage to the viewing of both faces together on video equipment with the screen split vertically. They discovered that judges can adjust their interpretation of a subject’s gaze direction if the second subject’s head movements are visible. In this study, the screen was split horizontally to allow a closer zoom into the eye region of each subject’s face. The judges viewed one subject at a time, i.e., the top or bottom half of the split screen. Prior to the running of the judging sessions, it was the E’s opinion that the presence of both faces on the screen together might distract the judges and introduce avoidable error. The judges confirmed this impression in practice, stating that the second face on the screen was a distraction and might divert the judge’s attention. To eliminate this source of distraction, a sheet of paper, held in place by the static electricity generated across the face of the picture tube, was placed
over that half of the screen which was not being viewed.

The Mach V and MT scores reported in Table 2 are consistent with Christie's (1970) results, reported in the first chapter of this study (p.3). Considering the relatively small sample size of the present study (N=24), what differences do exist are likely to be the result of sampling fluctuation. It is of interest to note, however, that the scores for clients were significantly higher than the scores for therapists on the five MT items. These results suggest that the Interpersonal Communication undergraduate students in this study tend to be more manipulative than the Clinical Psychology graduate students.

It is not surprising to find that therapists made fewer glances, gazed longer per glance and gazed more of the time than the clients, as shown in Table 1. These results are consistent with Kendon's (1967) findings that listeners gaze more than speakers. Even though no analysis of gaze while speaking and listening was conducted, the client would be expected to speak more than the therapist during a counseling interview. The judges in the present study each commented that the subjects on the top half of the screen (clients) were talking much more than those on the bottom half (therapists). These unsolicited comments were made without audio playback or an awareness of the nature of the interaction between the subjects.

The lack of significant correlations between Machiavellianism and gaze probably is due, in part, to the limited range of the therapists' Mach V (86-118) and MT (13-25) scores. The endpoints of the
range for Mach V scores fall within the "Slightly Disagree" to "Slightly Agree" levels according to Christie (1970). With all of the scores clustering so near the "Neutral" point of 100, it is unlikely that any meaningful relationship could be determined.

The tendency for the relationship between the therapist's MT and the Duration of MG to be in the negative direction, as reported in Table 5 ($r = -0.206$, non-significant at $p < .05$), must be discussed in relation to two other reported results. There was a near zero correlation found between the therapist's MT and the therapist's Duration of Gaze reported in Table 3 ($r = +0.013$). There was a nonsignificant negative correlation reported in Table 4 between the therapist's MT and the client's Duration of Gaze ($r = -0.277$).

Since there appears to be practically no correlation between a therapist's MT score and his Duration of Gaze, the negative direction of the correlation between MG and the therapist's MT may be the result of the negative correlation between the therapist's MT and the client's Duration of Gaze.

Although non-significant, the results indicate that the more Machiavellian the therapist, the less his client gazed at him. Perhaps this is a result of more speaking on the part of the client of the Machiavellian therapist. This study did not include such an analysis. Further research into this area of analysis is warranted.

The technique of individual counseling practiced by the student therapists in this study is based upon the therapist's empathic understanding of the client's feelings. This technique entails
careful, attentive listening and pausing before reflecting the client's statements. This calls for a good deal of gazing at the client. It could be the case that the more empathic the therapist, the more MG he engages in with his client. The results of this study suggest that MG may not be a good predictor of the manipulative tendencies of a therapist.

Future investigations making use of video tape in measuring gaze and mutual gaze might wish to incorporate an elaborate computer system to record gaze direction as in the Goldstein et al. (1976) study. The pen-recording system used in this study is a laborious and time consuming process. Further investigation into the use of gaze as a manipulative tool in social interactions is warranted.
Appendix A

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:

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

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.
Mach V Scale

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. 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.

11. A. All in all, it is better to be humble and honest than to be important and 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.

12. A. A person shouldn't be punished for breaking a law which he thinks is unreasonable.
B. Too many criminals are not punished for their crime.
C. There is no excuse for lying to someone else.

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

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

15. 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.

16.*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 terms with everyone.
C. Honesty is the best policy in all cases.

17. A. It is possible to be good in all respects.
B. To help oneself is good; to help others even better.
C. War and threats of war are unchangeable facts of human life.

18.*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.

19. 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.

20. 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.

* Mach Tactics items.
Appendix B

Male-Female Combinations for Therapist-Client Dyads

<table>
<thead>
<tr>
<th>Combination</th>
<th>Number of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Therapist/ Female Client</td>
<td>3</td>
</tr>
<tr>
<td>Male Therapist/ Male Client</td>
<td>2</td>
</tr>
<tr>
<td>Female Therapist/ Female Client</td>
<td>4</td>
</tr>
<tr>
<td>Female Therapist/ Male Client</td>
<td>3</td>
</tr>
</tbody>
</table>

12 Total
Appendix C

Male-Female Breakdown of Gaze Variables

<table>
<thead>
<tr>
<th>Subject</th>
<th>Frequency (glances/min)</th>
<th>Avg. Length (seconds/glance)</th>
<th>Duration (seconds/min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Ther.</td>
<td>4.0</td>
<td>17.8</td>
<td>54.9</td>
</tr>
<tr>
<td>Female Ther.</td>
<td>1.8</td>
<td>61.7</td>
<td>52.3</td>
</tr>
<tr>
<td>Male Client</td>
<td>7.7</td>
<td>5.8</td>
<td>42.9</td>
</tr>
<tr>
<td>Female Client</td>
<td>9.1</td>
<td>10.6</td>
<td>42.2</td>
</tr>
</tbody>
</table>
Appendix D

Male-Female Breakdown of Mach V and Mach Tactics

<table>
<thead>
<tr>
<th>Subject</th>
<th>Mach V</th>
<th></th>
<th>MT</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range</td>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>Male Therapist</td>
<td>88-118</td>
<td>100</td>
<td>15-19</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Male Client</td>
<td>96-120</td>
<td>106</td>
<td>15-21</td>
<td>19.4</td>
<td>5</td>
</tr>
<tr>
<td>Male Total</td>
<td>88-120</td>
<td>103</td>
<td>15-21</td>
<td>18.2</td>
<td>10</td>
</tr>
<tr>
<td>Female Therapist</td>
<td>86-106</td>
<td>98</td>
<td>13-25</td>
<td>17.6</td>
<td>7</td>
</tr>
<tr>
<td>Female Client</td>
<td>87-120</td>
<td>101.8</td>
<td>15-25</td>
<td>20.1</td>
<td>7</td>
</tr>
<tr>
<td>Female Total</td>
<td>86-120</td>
<td>99.9</td>
<td>13-25</td>
<td>18.8</td>
<td>14</td>
</tr>
</tbody>
</table>
REFERENCES


