VALUE FOR HONESTY AS A FUNCTION OF MACHIAVELLIANISM AND PARTICIPATION IN A DISHONEST ACT

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VALUE FOR HONESTY AS A FUNCTION OF MACHIAVELLIANISM AND PARTICIPATION IN A DISHONEST ACT

by

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ABSTRACT

The present study determined high and low Machiavellians ranking of the value Honesty on Rokeach's Value Survey. Secondly, the study investigated how these rankings are affected by the subject's participation in a dishonest act. Eight groups of ten subjects were tested in a 2x2x2 factorial design employing two levels of Machiavellianism, two levels of justification for cheating, and cheating, non-cheating groups. In initial ranking of the value Honesty, high Machiavellians appear to place a lesser importance on the value of Honesty when compared to low Machiavellians. Secondly, justification and cheating behavior interact to affect the subject's ranking of the value Honesty.

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INTRODUCTION

Machiavellianism refers to the manipulation of others to achieve one's own ends, often through the use of guile and deceit. Christie and Geis (1970) have developed a set of scales (Mach IV and the Mach V) that distinguish between those who endorse Machiavellian ideals (high Machs) and those who agree more with conventional morality (low Machs).

The present study determined high and low Machiavellians' ranking of the value Honesty (using Rokeach's Value Survey, Rokeach, 1968). Secondly, the study investigated how these rankings are affected by the subject's participation in a dishonest act (cheating). More specifically, the research on this second question centered on the dissonance cheating causes, and how this dissonance subsequently affects the high and low Machiavellians' rankings of the value Honesty.

Rokeach (1968) states that values "have to do with modes of conduct and end states of existence. To say that a person has a value is to say that he has an enduring belief that a specific mode of conduct or end state of existence is personally and socially preferable to alternative modes of conduct or end states of existence" (Rokeach, 1968, p. 160). Rokeach distinguishes between two types of values, instrumental values and terminal values.

An instrumental value is therefore defined as a single belief that always takes the follow-

> ing form, 'I believe that such-and-such a mode of conduct (for example honesty, courage) is personally and socially preferable in all situations with respect to all objects. A terminal value takes a comparable form: I believe that such-and-such an end state of existence (for example salvation, a world at peace) is personally and socially worth striving for' (Rokeach, 1968, p. 160).

In the Rokeach Value Survey, the subject is given a series of 18 instrumental values and 18 terminal values. The subject must rank order the values (terminal and instrumental separately) according to their importance for the subject. The present experiment was concerned with the subject's ranking of the instrumental value Honesty.

Many of the statements on the Mach IV scale deal directly with honesty in an interpersonal situation. Half of the items on the scale are worded in such a way as to reflect conventional morality and half reflect a Machiavellian viewpoint. Examples of such statements are the following:

> Honesty is the best policy in all cases; all in all, it is better to be humble and honest than important and dishonest; the best way to handle people is to tell them what they want to hear; there is no excuse for lying to someone. (Christie and Geis, 1970, p. 17).

Since high Machs do endorse statements that often go against conventional morality, high Machs would be expected to rank the value Honesty differently from low Machs. Rim (1970) tested for this possibility by administering the Rokeach Value Survey to four groups of male Israeli students. The four groups were then given a second test. One of the groups was required to fill out the Mach scales, the other three groups received Dogmatism, Intolerance of Ambiguity and Authoritarianism scales, respectively. Rim found that the mean ranking of the value Honesty by high Machiavellians did not differ significantly from that of low Machiavellians. However, the results were in the direction one might expect from the orientation toward conventional morality of high Machiavellians, i.e., the mean ranking of Honesty for those scoring low on the Mach scales was 3.6, for those scoring high on the scales, 4.4 (Rim, 1970). There are several reasons that could explain the lack of significant differences in the two groups. Rim does not indicate if the Mach scores of the Israeli sample are comparable to those of a North American sample. Since urbanization and industrialization are known to affect Mach scores (Christie and Geis, 1970), it is possible that the rankings for a North American sample might be different than the Israeli sample of Rim. Also, the mean values of Honesty reported by Rim appear to be higher than those reported by Rokeach (1968) from his Israeli sample (mean value for Israeli sample - 5.1).

Another factor that should be considered, is that just because the 18 values are rank ordered into 18 slots, we should not assume an equidistance in importance between the values. Therefore, if two subjects ranked the value Honesty third, it would not mean that this value holds the same importance, relative to the first and second values, for the two subjects. The present study allowed high and low Machiavellians a larger scale with more positions to place the values in, thus allowing more sensitivity to the differences in value structures of high and low Machiavellians.

The second question in this study concerns dissonance and its possible effect on the high and low Machiavellians' ranking of the value Honesty. Festinger (1957) defines dissonance as a state that occurs between two nonfitting cognitions. Two cognitions are in a dissonant relationship if "considering those two alone, the obverse of one element would follow from the other" (Festinger, 1957, p. 13). Festinger states that this gives rise to a pressure to reduce dissonance. For example, a person may have a cognition that cheating is wrong. However, suppose this person has just cheated on a test. These opposing cognitions, cheating is wrong and the fact that the person has cheated, causes dissonance. This dissonance may be reduced by an attitude change to support the behavior. In the present situation, the person might alter his belief that cheating is wrong, to justify his behavior.

Concerning Machiavellianism and dissonance, Christie and Geis cite a study by Bogart, Geis, Levy and Zimbardo (1970) that was concerned with the dissonance effects cheating would have on post-experimental measures of Mach scores. Bogart et al. (1970) hypothesized that "Since high Machs are less distracted by emotional involvements, they should be able to avoid dissonance better than low Machs: since they are less personally involved with their cognitions, they should show less need to save face by changing cognitions when they do violate them" (Christie and Geis, 1970, p. 236). Bogart employed two levels of dissonance, a high justification (low dissonance) condition, and a low justification (high dissonance) condition. In the high justification condition, the subject was paired with a confederate described as a highly admirable law student. In the low justification condition, the subject was paired with a negatively evaluated confederate. The subject and the confederate were given a set of problems which became increasingly more difficult and soon impossible to solve. At this point, the experimenter was called from the room to answer a telephone call. The confederate then attempted to persuade the subject to cheat. The confederate removed the answers from the experimenter's desk and began to copy them down. The confederate offered the answers to the subject three times. Those who accepted the answers were classified as cheaters. Bogart et al. report that:

> Lows who cheated in the high dissonance condition with the unattractive partners providing low extrinsic justification lowered their endorsement of conventional morality; those who complied in the low dissonance condition with the attractive partner providing more justification increased their endorsement (Christie and Geis, 1970, p. 246).

Bogart et al. (1970) found no significant attitude change for the high Machs. However, the high Machs did show a tendency to lower their Mach scores after cheating in the low justification condition.

Overall, high Machs did not cheat more often than low Machs. However, Bogart et al. found that high Machs cheated more often in the low dissonance condition than in the high dissonance condition. Low Machs did not show this discrimination.

Christie and Geis (1970) interpret these results as indicating that high Machiavellians do not experience the typical dissonance reactions. These findings have received some support from more recent research. Burgoon, Miller and Tubbs (1971) placed high and low Machs in a counter attitudinal advocacy situation and found the typical dissonance reactions for low but not for high Machs.

Christie and Geis state that since high Machs are not emotionally involved in their cognitions, no dissonance is

produced when two conflicting or dissonant cognitions are present. However, it is possible that no dissonant or conflicting cognitions were present for the high Machs who cheated in the Bogart et al. (1970) study. Since a high Mach does not have the same attitudes toward conventional morality that the low Mach has, high Machs who cheat do not necessarily have two conflicting cognitions against cheating. If this is the case, a dissonance-producing situation for a high Mach would be one in which there is a high justification for cheating, but the high Mach does not cheat. It would seem then, that low Machs who cheat in a low justification condition (high dissonance) would lower their ranking for honesty, while high Machs who do not cheat in a high justification (a high dissonance) condition would raise their ranking of Honesty.

There are, however, two basic questions that these assumptions raise. The first is whether or not dissonance can be reduced through a change in a value rank on the Value Survey. Past research with cheating and the ranking of the value Honesty (Homant and Rokeach, 1970) would seem to indicate that changing the ranking for Honesty by dissonance is possible. Homant and Rokeach (1970) employed two levels of motivation for cheating and two levels of the salience of the value honesty. Motivation was varied by decreasing the number of problems necessary to receive a certain monetary reward. Salience for honesty was varied by the stress placed

on the value when it was read aloud, with the other values. In the high salience condition, honesty was directly defined as not cheating in class. A group of 193 sixth graders were divided into four groups: high motivation, high salience; high motivation, low salience; low motivation, low salience; low motivation, high salience. The children were then given a set of problems to do, on which they were given ample opportunity to cheat as the experimenter turned his back as he wrote what the children thought were the correct answers on the board. A few days later, a post measure of the children's values was taken to see if the cheaters, those who had copied and turned in the wrong answer, showed the dissonance reaction of devaluating honesty.

Homand and Rokeach found that in the high salience, low motivation condition, the cheating subjects significantly lowered their value for honesty. Several explanations for the negative results in the other three groups are possible. First of all, the high salience, low motivation condition would be expected to produce more dissonance from cheating than the other conditions. Secondly, it is possible that dissonance was eliminated in another manner (i.e., devaluation of the experimenter). Finally, the cheating manipulation may not have been dissonance-producing for many of the children. Homant and Rokeach informed the children that the answers written on the board were incorrect and

that no individual reward could be given and instead, the promised reward money must go to the class treasury. Since the authors do not report directly that the loss of reward was caused by cheating, many of the children may not have been aware that cheating had cancelled the reward. Another possibility, one that the present study investigates, is that the three groups contained a disproportional number of high Machs. Despite all of these possible confounding variables, the fourth group did show a significant change in the value Honesty. Given the proper controls, change in the ranking of Honesty seems a viable method for showing dissonance reduction in the present study.

The second basic question concerns the problem of randomly determining cheaters and non-cheaters in an experimental paradigm. Bogart et al. (1970) found that high Machs cheated differentially with many more high Machs cheating in the high justification condition than in the low justification condition. This self-selection of subjects prevented random assignment of high Machiavellians into cheating and non-cheating conditions. As the Homant and Rokeach results would indicate, it is necessary to have subjects in a high dissonance situation to get a value change. Therefore, a procedure is necessary that will expose all high Machiavellians to the cheating or non-cheating condition that had been randomly assigned to them. This was accomplished in the present study by using a procedure that

directly controls or manipulates those subjects that are to be classified as "cheaters". A study by Jones and Sigall (1971) suggested the basis for such a procedure.

Jones and Sigall review a series of articles in which subjects are convinced that a physiological measure of the amplitude and direction of an attitude is possible. The paradigm labelled "the bogus pipeline" involves the use of various types of physiological measures, complex-looking electrical equipment, and a deceptive validation procedure to convince subjects that their attitudes or feelings can be measured physiologically. Once the subject is convinced that the machine can read attitudes physiologically, the subject is asked to guess the machine reading or output of his attitudes in a number of situations. Since the subject is convinced that the machine can measure his "true reactions", it was thought that the bogus pipeline would eliminate many of the biases and problems of the standard rating procedures in which a subject typically expresses or gives his attitude toward something.

Jones and Sigall report several studies in which the bogus pipeline is used. In all of the studies used, there appears to be little difficulty in convincing the subject that such an apparatus is possible, especially after the use of the validation procedure. Jones and Sigall cite a study by Cooper (1971) in which subjects were wired to a "differentiated G.S.R." which was reported to be able to

measure positive or negative affects. The subjects were then asked to consider how they felt or reacted to a statement being read by the experimenter. The statements had appeared earlier on questionnaires administered to the subjects. With this information available to him, the experimenter could report measurements by the "differentiated G.S.R." that were similar to the subject's feeling on a given statement. Jones and Sigall report that almost all of the subjects agreed that the machine had accurately measured their feelings. All of the subjects who first appeared doubtful were convinced of the machine's accuracy after a few "adjustments" had been made and a second statement administered. Jones and Sigall state that:

> It should be noted that this procedure used each subject's acquiescent response as evidence to validate the discernment of the machine in the eyes of the others. The effect was very powerful, and the subjects were characteristically quite surprised to learn after the experiment that the machine properties were fictitious (Jones and Sigall, 1971, p. 357).

Since subjects are readily convinced of the machine's ability to predict reactions, the paradigm would seem applicable to the present study. Instead of allowing subjects to decide whether they will cheat in a given situation (as in Bogart et al.), a bogus pipeline setup was used to "inform"

subjects of how they were reacting in a certain cheating situation, thus directly manipulating the cheating/non-cheating variable.

In summary, then, it was hypothesized that: (1) High Machiavellians compared to low Machiavellians would give a significantly lower ranking of the value Honesty; (2) High Machiavellians in the high justification, non-cheating condition would significantly raise their ranking of the value Honesty; (3) Low Machiavellians in the low justification, cheating condition would significantly lower their ranking of the value Honesty.

METHOD

Pre-measures

One month before the start of the experiment, 84 female and 66 male introductory psychology students at Memorial University of Newfoundland were administered three scales and one brief questionnaire containing items for the validation procedure to be used in the experimental manipulation. The instructors of the classes administered the scales and questionnaire to prevent the subjects from recognizing the experimenter during the study.

The first two scales given were the Mach IV and the Mach V scales to determine the subject's Machiavellian orientation.

The subjects were also administered a modified form of the Value Survey. Unlike the usual Rokeach procedure, however, subjects were asked to assign a position or rank to the 18 values on a 100 point scale, allowing a finer discrimination of the relationship between values. This was done for both the terminal and instrumental values.

The subjects were then given the validation questionnaire labelled "General Opinion Questionnaire" (see Appendix A). Below is a sample item from the questionnaire and the scale used to express the subject's opinion. Three of the items on which the subject held the most extreme

---

My attitude toward legalization of marijuana is

Favorable/..../..../..../..../..../..../..../Unfavorable

---

views were chosen for the validation procedure. The position of favorability on the scales was randomly chosen to avoid positional responding.

Design

As in the Bogart et al.[9] (1970) study, the subject's Mach IV and Mach V surveys were scored and the two scores were averaged to give a measure of the subjects' Machiavellian orientations. The subjects whose scores were in the upper third of the sample were classified as high Machiavellians. Those scoring in the lower third were classified as low Machiavellians. Forty high Machs and

forty low Machs were randomly chosen and divided into eight groups of 10 subjects. The study employed a 2x2x2 factorial design with two levels of Machiavellianism, two levels of justification, and cheaters, non-cheaters.

Apparatus

The basic apparatus used in the study to manipulate cheating was a G.S.R. machine. The machine was placed on a table in front of the seated subject. Several wires led from the machine to a large equipment panel right and and to the rear of the subject filled with complex-looking relays, lights, wires and switches. The panel contained a large label identifying it as the "Decoder". A large cable connected to the decoder led out of the room supposedly to the computer room. Another cable supposedly running from the computer came into the room and was connected to a large calibrated meter that was positioned on the table directly in front of the subject. The meter was marked positive on one side and negative on the other. Actual controls for the meter were positioned behind the subject so that the meter could be controlled out of the sight of the subject by the experimenter.

Procedure

Forty high Machiavellians and forty low Machiavellians were assigned randomly to the four high Mach and four low Mach conditions respectively. Subjects were tested

individually. Each subject was seated before the apparatus and read the following instructions:

> The present experiment is part of a series of experiments that are being conducted throughout Canada to establish norms for a relatively new piece of electronic testing equipment. Although this particular machine is new, the basic apparatus is one that is familiar to most people. The machine uses as its basis the galvanic skin response or G.S.R. The G.S.R. is a measure of the electrical resistance of the skin. Although you may not be familiar with the G.S.R., I am sure you have heard of the so-called "lie detector" test. Well, the G.S.R. is one of the measures taken by this test. Various emotional states are known to affect the reaction of the sweat glands which, in turn, affects the electrical resistance across the skin. Two electrodes placed at various positions on the skin can then measure this change in resistance.
>
> The machine before you represents an exciting new breakthrough in the measurement of the G.S.R. with the use of modern computers and a new decoding device, that you see next to the G.S.R., according to positive or negative reactions or feelings. For

example, if I were to wire you to the machine, and we were to talk about a given situation, the machine would be able to tell whether you are reacting positively or negatively to this situation by taking your G.S.R., running it through the decoder, into the computer, and back out to this meter on the desk before you. (Aside to the subject, 'Come across the hall and I'll show you the computer this thing is hooked in to.')

At this point the subject was taken across the hall and shown the departmental computer. After returning to the room, the instruction continued.

To get back to the purpose of the experiment, we are quite confident that the machine is very accurate in measuring positive or negative feelings in a given situation and we are not here to test that factor. However, it has been found that with this machine, different populations have different base or normative G.S.R. outputs. We are hoping to find out whether or not the base output for Newfoundland is different from that in other parts of Canada. The meter on the G.S.R. will give the readings necessary for the experiment. For your information, you may watch your reaction on the other meter in front of you.

I will read you a set of standard situations that are being used in experiments elsewhere. The machine will tell us your reactions or feelings, positive or negative, and your base output. As I read each situation, please think about it carefully.

At this point, after hooking up the G.S.R. apparatus, the experimenter read a situation structured around one of the opinions given by the subject in the pretest qeustionnaire. For example, if the subject felt very negative about the legalization of marijuana, the following situation would be read to the subject:

The question of legalizing marijuana has been put before the people of Canada. You are about to cast your vote on this issue.

The experimenter would then adjust the meter to a strongly negative position. The experimenter would appear to copy down the G.S.R. reading while remarking, "I see you are against this issue according to the machine. Does this coincide with your feelings?" If the subject seemed to think the machine was somewhat incorrect, the experimenter would appear to adjust the decoder and remark, "I'm sure the next reading will be accurate." Each subject was given three situations, structured around his previously stated opinions. After this, each subject was read a fourth situation which contained the experimental manipulation.

The subjects in all of the groups were read the following fourth situation. Only the underlined portions varied according to the experimental condition.

> You are taking a final exam in a large auditorium. The exam is worth 85% of your final grade, and you are doing quite poorly in the course. You are having trouble answering the items on the test. Looking slightly to the left, you see the proctor looking over the answers to the test, and they are clearly visible. Think about this situation and the cheating involved.

The experimenter then took the base reading, and commented on the subject's apparent reactions in the cheating situation. The following are the variations inserted in the above statement for the eight experimental conditions in order to manipulate justification and cheating, respectively.

Justification: This factor was varied by changing the emphasis placed on the exam. In the four groups labelled high justification, the underlined sections read "85%" and "poorly" as shown above. In the groups labelled low justification, the underlined portions read "5%" and "well".

Cheating: For the four groups that were designated cheaters, the meter always showed a highly positive reaction to the situation. The experimenter commented, "It appears that you

would have cheated in that situation." For the groups that were classified as non-cheaters, a negative reading showed the subject's apparent rejection of the opportunity to cheat, and the experimenter commented accordingly.

Post Measure: After the presentation of the fourth situation, the experimenter terminated the experiment. Before leaving the experimental room, the subject was asked to fill out the Rokeach Value Survey under the following guise to dissociate it from the present study.

> "A friend who is doing some research asked if my subjects would fill out a brief questionnaire for him."

If subject reported that they had previously filled in the questionnaire, the experimenter stated that several people were using this questionnaire and it would be helpful if they completed it again.

After completing the questionnaire, the subjects were told that they could receive an explanation of the experimental results by mail, after completion of the study. Subjects were then given payment for the experiment and the session was terminated.

Results

To determine the effectiveness of the above apparatus, eight subjects, one in each condition, were pre-tested using the procedure described above. The subjects were then questioned about the procedure and their reaction to the

apparatus. In all cases, the subjects believed that, in fact, the machine had measured their reactions accordingly. A Binomial test (Runyon and Haber, 1967) indicated the probability by chance alone of all eight believing the manipulation to be .004.

The modified Rokeach Value Surveys (premeasure) for high and low Machiavellians were scored and the subject's ranking (on a 100 point scale) of the value Honesty was recorded. Means of these rankings were calculated for the low Machiavellian and the high Machiavellian groups and are shown in Table 1.

TABLE 1

High Machiavellians and Low Machiavellians Mean Rankings of the Value "Honesty"

Survey Scored Using 100 Point Scale		Survey Scored Using Rokeach Method	
$\bar{X}$ High Machs	$\bar{X}$ Low Machs	$\bar{X}$ High Machs	$\bar{X}$ Low Machs
20.66	7.13	6.9	3.8
m = 68	m = 56	m = 68	m = 56
t = 2.43* df = 122		t = 3.54** df = 122	

*$p < .01$

**$p < .001$

Note -- Higher mean scores indicate a lower ranking of Honesty.

Table 1 also shows the results of a test comparing these two means. The high Machiavellians show a significantly lower mean ranking (20.66) of the value Honesty, as compared to 7.13 for low Machiavellian. The t value of 2.43 was reliable at the .01 level of probability.

To make comparisons with earlier studies, the Value Surveys for high and low Machiavellians were then recorded according to the typical Rokeach Scoring Method (simple rank ordering of 18 values). The subject's ranking of the value Honesty was then recorded and mean ranking calculated. These means and results of a test comparing these means can also be seen in Table 1. As with the previous scoring method, high Machiavellians had a significantly lower ranking of the value Honesty, with a mean of 6.9 compared to 3.8 for the low Machiavellians. Once again, the t value for this comparison (3.54) was statistically dependable at the .001 level of probability.

A three factor 2x2x2 ANOVA was also used to compare the premeasure rankings of the value Honesty (on the 100 point scale) for all 80 subjects in the eight conditions. Table 2 summarizes the results of this analysis. As expected, only the F value for the main effect of Machiavellianism was reliable ($F=5.08$; $df=1,72$; $p<.05$).

The post-measure ranking of Honesty on the Rokeach Value Survey was then calculated using the 100 point response scale for all 80 subjects in the eight conditions.

TABLE 2

Pre-measure of Ranking of Honesty ANOVA

Source	df	ms	F
Machiavellianism (A)	1	959.11	5.08*
Justification (B)	1	324.01	1.71
Cheat - Non-Cheat (C)	1	49.61	
AB	1	165.32	
AC	1	74.12	
BC	1	66.62	
ABC	1	214.50	1.13
S/ABC	72	188.69	

*$p < .05$

These post-rankings were then subtracted from the initial pre-measure ranking to yield a difference score for each subject. A mean difference score was then calculated for each condition. Positive difference scores indicate an increase in the importance or ranking of Honesty while negative difference scores indicate a decrease in the importance or ranking of Honesty. A three factor 2x2x2 ANOVA was used to compare these difference scores in the eight conditions. Table 3 summarizes the results of this analysis. The Machiavellianism x justification x cheating - noncheating interaction was statistically reliable ($F=4.91$; $df = 1,72$; $p < .05$). Figure 1 illustrates this interaction.

TABLE 3

Mean Difference Score ANOVA

Source	df	ms	F
Machiavellianism (A)	1	180.00	1.32
Justification (B)	1	57.80	
Cheat - Non-Cheat (C)	1	.80	
AB	1	396.05	2.91*
AC	1	238.05	1.75
BC	1	4.05	
ABC	1	667.90	4.91**
S/ABC	72	136.02	

*p .10

**p .05

Figure 2 shows mean difference scores for low Machiavellians with the high and low justification conditions compared to the cheating and non-cheating conditions. Low Machs in the non-cheating groups show a tendency to raise the ranking of the value "honesty" more than do cheating groups. Also, low Machiavellians in the high justification conditions (cheaters and non-cheaters) show a larger change than do low Machs in respective low justification conditions.

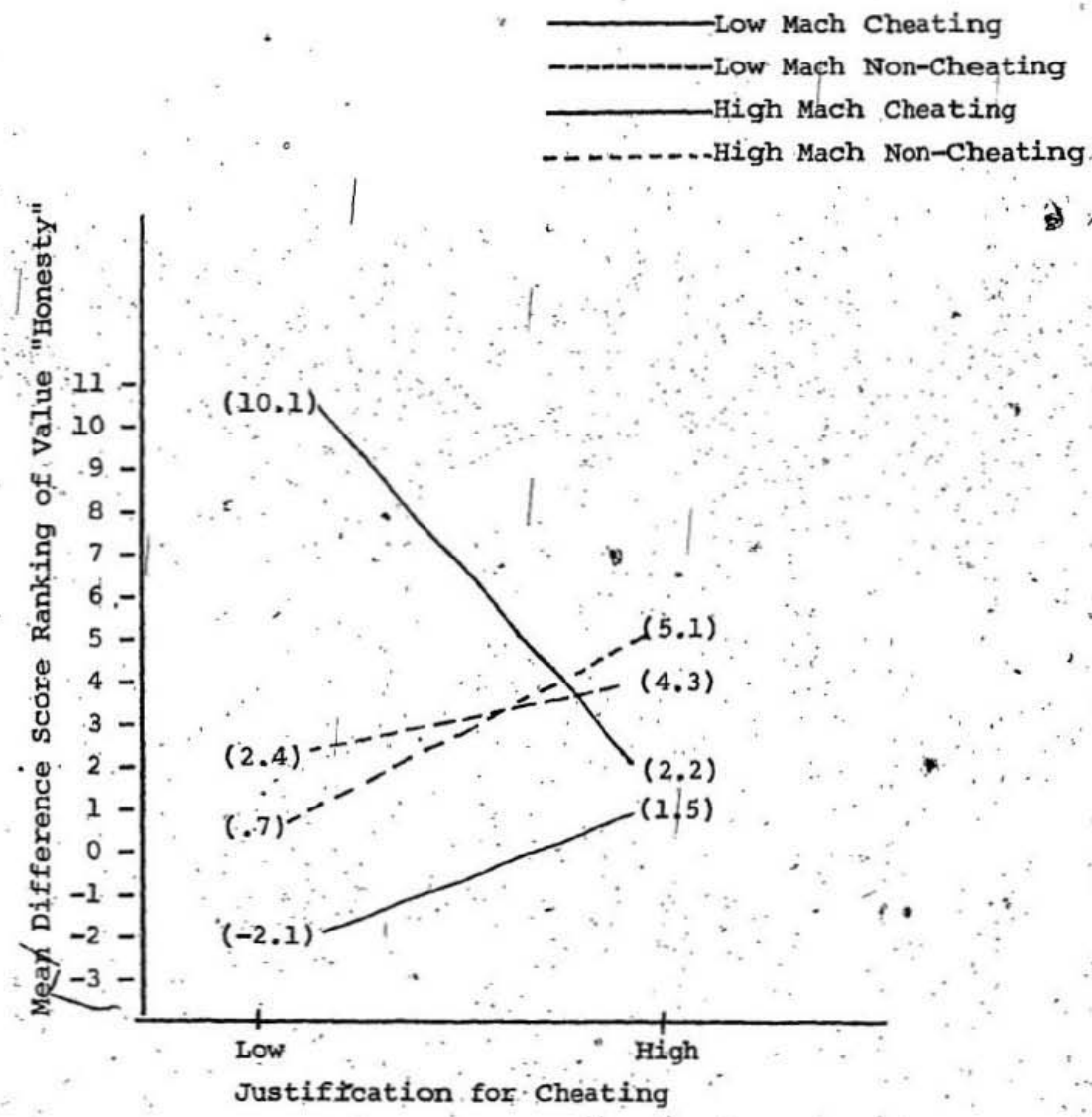

Figure 1. High Machiavellians and Low Machiavellians Mean Difference Scores as a Function of Justification, for Cheating, Non-Cheating Conditions. Mean difference scores in the positive direction indicate an increase in the importance of the value Honesty.

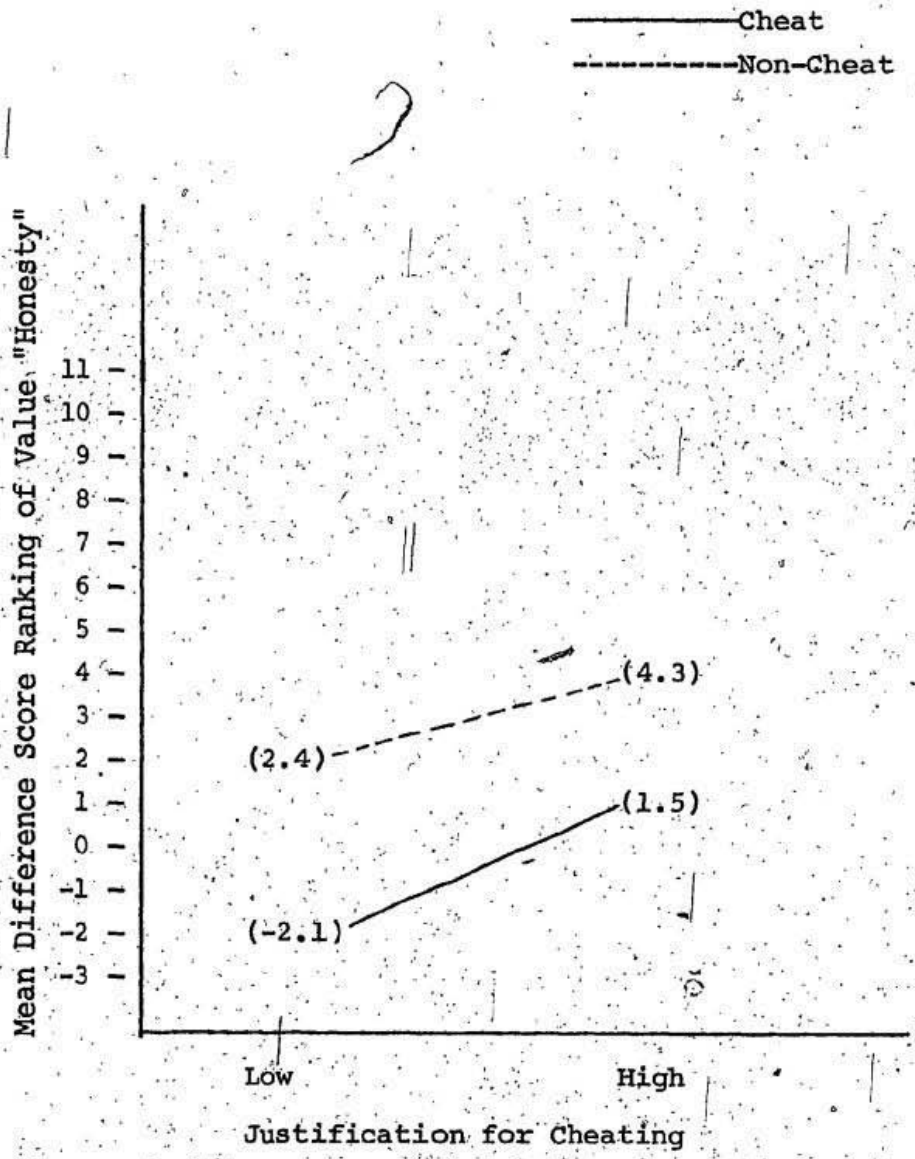

Figure 2. Low Machiavellians Mean Difference Scores as a Function of Justification for Cheating - Non-Cheating Conditions. Mean difference scores in the positive direction indicate an increase in the importance of the value Honesty.

Figure 3 shows mean difference scores for high Machiavellian groups with the high and low justification conditions compared to the cheating and non-cheating groups.

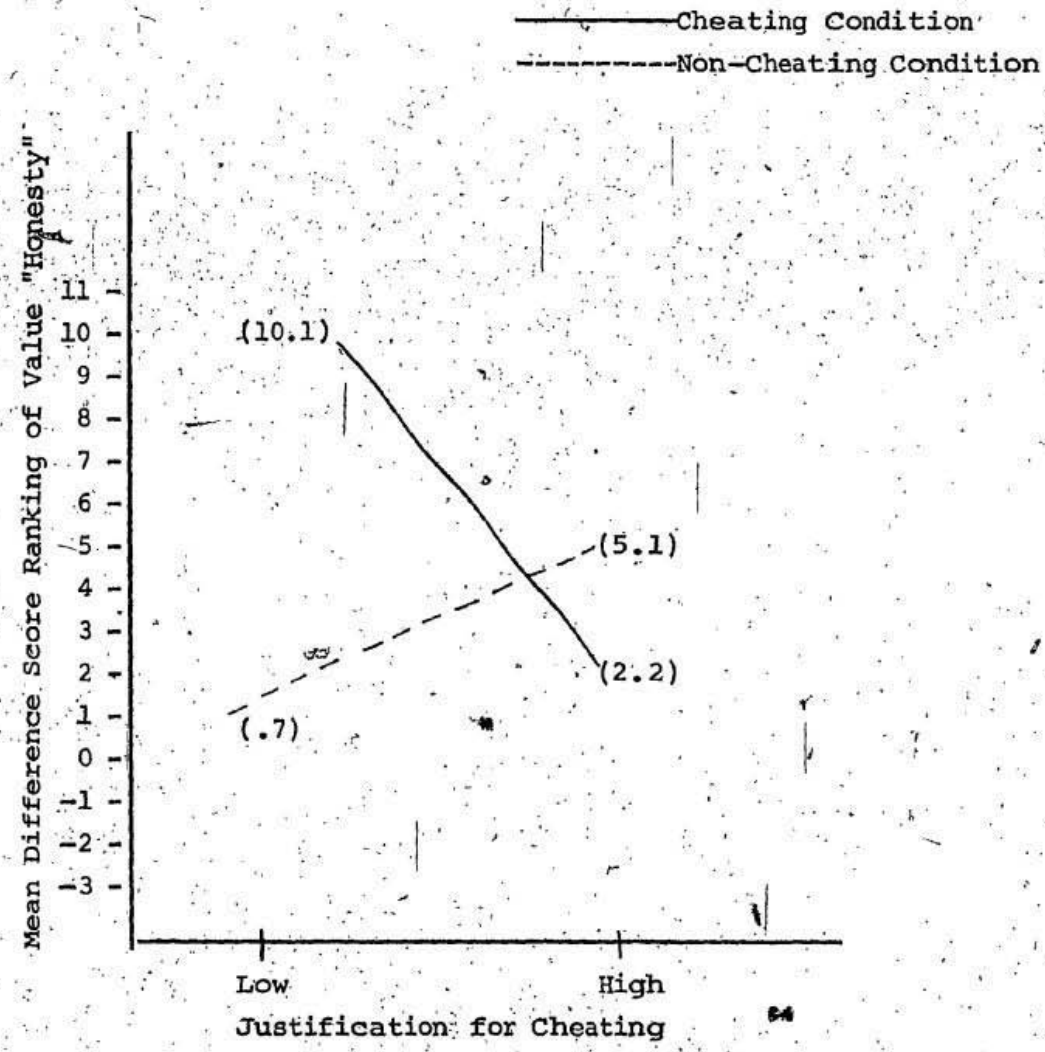

Figure 3. High Machiavellians Mean Difference Scores as a Function of Justification for Cheating, Non-Cheating Conditions. Mean difference scores in the positive direction indicate an increase in the importance of the value Honesty.

High Machiavellian cheaters in the high justification conditions show a mean difference score lower than that of the non-cheaters with the same justification. High Mach cheaters in the low justification condition show a higher mean difference score than do high Mach, non-cheaters in the same condition.

Further comparisons of the treatment means relating to the hypothesis were made using t-tests for a posteriori comparison as described by Ferguson (1971, p. 269). The treatment means of 5.1 and .7 (High Machiavellian Non-Cheaters, High and Low Justification) and the treatment means of -2.1 and 1.5 (Low Machiavellian Cheaters, High and Low Justification) were compared with no significant differences being found.

The Machiavellians by justification interaction was marginally reliable ($F=2.91$; $df = 1,72$; $p < .10$). Figure 4 shows this interaction graphically.

High Machs in the low justification condition show a tendency to raise the ranking of Honesty.

DISCUSSION

The hypothesis that high Machiavellians would rank the value Honesty significantly lower than low Machiavellians received strong support in the present study. As predicted, the mean values of Honesty are quite different with high Machiavellians showing a lower ranking (20.66)

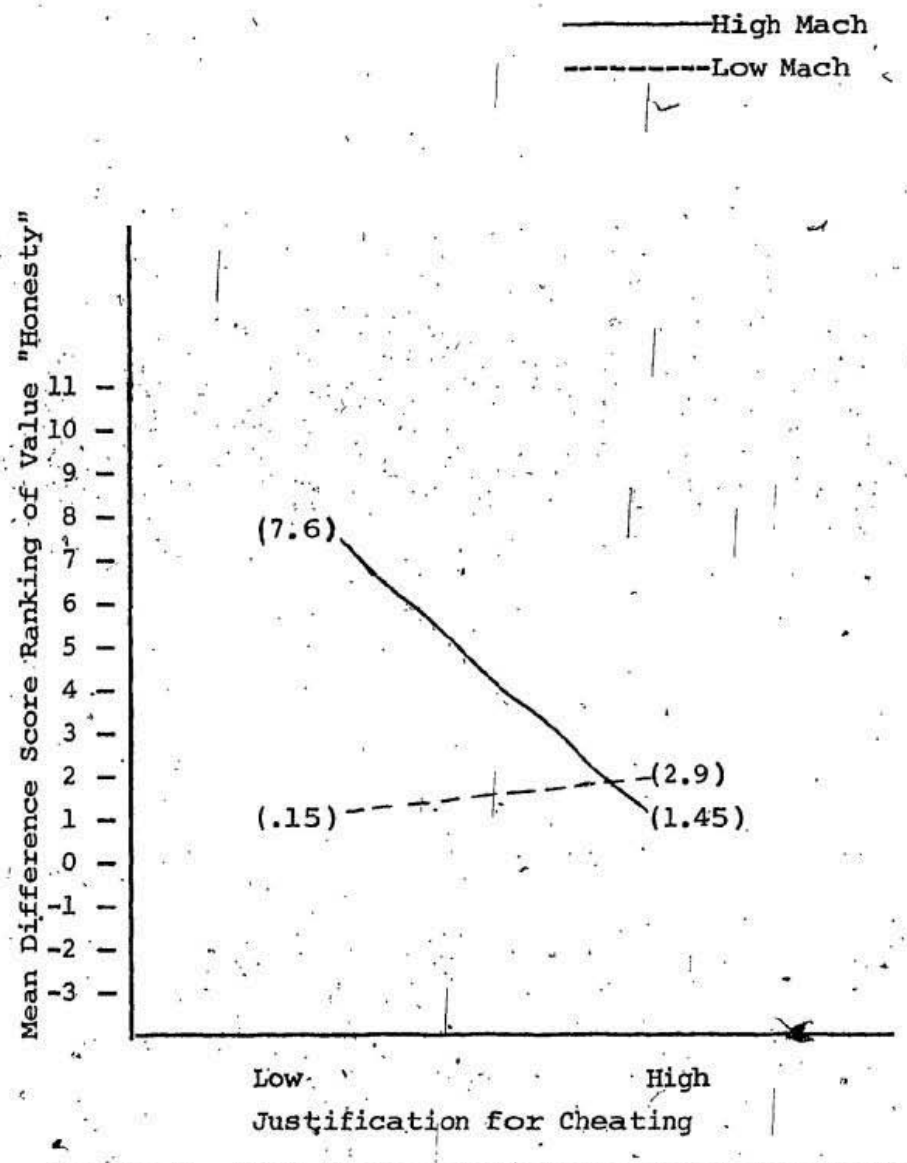

Figure 4. High Machiavellians and Low Machiavellians Mean Difference Scores as a Function of Justification. Mean difference scores in the positive direction indicate an increase in the importance of the value Honesty.

for Honesty than that for low Machs (7.13). This is what one would expect of the high Machiavellians given their orientation toward guile, manipulation and deceit.

When the Value Surveys were rescored in the usual manner, results are in the same direction (6.9 for highs vs 3.8 for lows) with the mean ranking being reliably different at the .001 level. It appears that increasing the scale to 100 possible positions was not necessary to show the difference between high and low Machiavellians' ranking of the value Honesty.

The present results confirm the hypothesis originally set out by Rim (1970). However, Rim failed to find support for his hypothesis. The mean rankings of 4.4 for high Machs vs 3.6 for low Machs were not found to be statistically different.

Rim's (1970) study used two different methods of determining high and low Machiavellians that could account for the stronger difference in the present study. Rim used only the Mach IV scale to identify his Machiavellians. The present study used a combination of the Mach IV and the Mach V scale to determine Machiavellianism. Since the Mach IV has been shown to be susceptible to social desirability (Christie and Geis, 1970), one might expect a more stable estimate of Machiavellianism by using a combination of the Mach IV and Mach V scales. The Mach V scale employs a forced choice scoring method that makes it difficult for subjects to pick a statement because it is socially more acceptable than another. Because of this, the Mach V tends to yield scores slightly higher than those of the Mach IV.

In addition, Rim used a different criterion for differentiating low Machs from high Machs. Rim divided Mach scores at the median labelling those above as high Machs, those below as low Machs. The present experiment employed only those scoring in the upper and lower thirds of the distribution and so obtained perhaps a purer sample of high and low Machs.

The F value of 5.08, significant at $p < .05$ level, for the Machiavellianism main effect in the analysis of the pre-measure ranking of Honesty also supports the difference in ranking of Honesty of high and low Machiavellians. The failure of the remaining F values to reach a significant level is to be expected as the subjects were randomly assigned to the four high Machiavellian and four low Machiavellian conditions.

The hypothesis that high Machiavellians in the high justification, non-cheating condition would significantly raise their ranking of the value Honesty, and the hypothesis that low Machiavellians in the low justification, cheating condition would significantly lower the ranking of the value Honesty, also received support in the present study. Table 1 shows no significant main effects for Machiavellianism, justification and cheaters - non-cheaters. However, the three-way interaction of these factors is reliable at the .05 level. Figures 2 and 3 do show results that are in the direction predicted by the above hypotheses.

High Machiavellians in the high justification, non-cheating group (see Figure 2) do show a tendency towards ranking Honesty as a more important value, as indicated by the mean difference score of 5.1. High Machiavellians in the same non-cheating condition with low justification show a mean difference score of .7. A positive mean difference indicates an increase in the importance of the value Honesty. Studies cited by Christie and Geis used traditional methods of producing dissonance with no significant results with high Machiavellians. The present study had theorized that in order to get a dissonance reaction from a high Mach a situation must be created in which the manipulative and deceptive cognitions of the high Machiavellian were violated by the fact that he had not cheated in a situation with high justification for cheating.

Concerning low Machiavellians and the hypothesis that low Machiavellians in the low justification, cheating condition will significantly lower the ranking of the value Honesty, the present results appear to be in the expected direction. Figure 3 shows that low Machiavellians in the low justification, cheating condition have a mean difference score of -2.1. This indicates that the low Machiavellians in this group showed a tendency to lower their ranking of the value Honesty. This is the only group that showed a negative mean difference score. Past studies cited by

Christie and Geis (1970) would predict this typical dissonance reaction from the low Machiavellian.

Another group in the present study, high Machiavellians cheating in a situation where there is low justification for cheating, also show a tendency towards dissonance reduction. Studies cited by Christie and Geis (1970) show a lack of evidence for this alternative because it has been found to be very difficult to persuade or coerce high Machiavellians to cheat in a situation that has low justification for cheating. In one of these studies cited, Bogart et al. (1970) stated that "It proved almost impossible to induce the high Machs to cheat in the high dissonance condition in which there was little justification for compliance (Christie and Geis, 1970, p. 245)."

In the present study, the use of the bogus pipeline caused high Machiavellians to become cheaters in a low justification situation, avoiding the problem encountered by Bogart et al. (1970). Figure 2 shows that high Machiavellians in the low justification cheating condition had a mean difference score of 10.0. This is the largest mean difference score among all of the eight conditions. Since justification appears quite important for the high Machs cheating, it seems possible that his cheating in the present situation could be dissonance producing. Such Such a sizable mean difference score would seem to indicate that the high Mach is not completely cool or disassociated

with the present situation. But, it should be noted that the mean difference score is in the positive direction. This indicates that high Machs who are faced with cheating in a low justification situation raise their ranking of the value Honesty. There appears no reason to assume that the high Machiavellian has cognitions against honesty in any situation. The scales (Mach IV and Mach V) are not oriented towards exclusive dishonesty, but more towards a relative or comparative dishonesty. The high Machiavellian does not endorse a statement saying honesty is not my policy, but a statement that says honesty is not always the best policy. It is quite likely that high Machiavellians view themselves as just as honest or dishonest as the rest of the world. In fact, Christie and Geis cite several studies that show high Machiavellians do not cheat more often than low Machiavellians. Overall, high Machs and low Machs were found in past studies to cheat at about the same rate. Bogart et al. (1970) found that high and low Machs cheated differentially with high Machs cheating more often in the low dissonance (high justification) condition than in the high dissonance (low justification) condition. If the high Mach sees himself as being no more dishonest than the rest of the world, it may be very threatening for the high Mach to suddenly see himself cheat when there is very little to gain from that action. In order to "save face" or ensure himself that he is not a dishonest person, the

high Mach could raise his value for honesty as seen in the present study. Results from the Bogart study tend to support the above. Bogart found that high Machs "who cheated in the high dissonance condition without external justification claimed to be more rather than less moral afterwards (although not significantly more moral)" (Christie and Geis, p. 246).

Before accepting Christie and Geis' suggestions of no dissonance for high Machiavellians, it would seem worthwhile to pursue the results presented above. Quite possibly, with a few changes in the present procedure, high Machs would show a stronger dissonance reduction. In the present study it is difficult to determine what impact the justification levels had on the subjects. This is very important as it appears obvious that justification is critical in the high Mach's decision to cheat. The Machiavellianism x justification interaction shown in Figure 4 is reliable at the .10 level. It appears that further investigation of the relationship between Machiavellianism and justification is necessary. It is obvious that the present low justification condition provided less justification for cheating than did the high justification condition. However, it would be possible to design a low justification condition that would contain more negative implications for cheating than the present manipulation. Possibly, what could be

used is a condition in which there is no justification for cheating. Placing high Machs in such a condition and having them cheat using the bogus pipeline method could produce more dissonance reduction.

In summary, two points seem apparent from the present study concerning the Machiavellian and his value for honesty. (1) In initial ranking of the value Honesty, high Machiavellians appear to place a lesser importance on the value of honesty as compared to the low Machiavellians' ranking of that value. Although this is what one might predict, given the theoretical orientation of the high Mach, it is interesting that several studies mentioned previously indicate that the high Mach does not cheat more often than the low Mach in an experimental setting. (2) Justification and cheating behavior interact with Machiavellianism to affect the subject's ranking of the value Honesty. Although a significant Machiavellianism x justification x cheater - non-cheater interaction was found, it was difficult to define the aspects of this interaction. Some trends in the data were discussed:

(1) Low Machs appear to react as expected, showing a tendency toward a typical dissonance reaction;

(2) High Machs show a tendency to shift their ranking of Honesty in a positive direction after cheating with low justification for cheating;

(3) High Machs show a tendency to shift their ranking of Honesty in a positive direction after non-cheating with high justification for cheating.

As in most of the studies cited earlier, it appears that the high Mach provides the uncertainty in the area of Machiavellian studies. Unfortunately after reading Christie and Geis one tends to see the low Mach, despite his staunch morals, as somewhat of a mundane experimental subject.

In conclusion, there are a few critical comments that should be considered. The problem of proper post measures seems especially relevant in dissonance studies. It is unfortunate but quite possible that subjects involved in dissonance research will reduce dissonance through a number of means other than that intended (i.e., a designated post measure). In retrospect, it might have been more advisable to include the Mach scales along with Rokeach Value Surveys as post measures. As discussed earlier, when dealing with high Machiavellians one needs to consider more than just the issue of honesty. Bogart et al. (1970) have shown the Mach scales can be used as post measures of attitude change. As Machiavellianism was a key factor in the study, it would have been helpful to see how the various conditions affected the subject's post testing Mach scores. Also as Bogart and others have used the Mach scores as a

post measure of attitude change, direct comparison would have been more applicable.

Another possible avenue of dissonance reduction in the present study should be discussed. It was vital in the present study that the subject be convinced that the apparatus could measure his inner feelings or reactions. Pre-testing indicated that the eight subjects tested were thoroughly convinced that the machine could and did perform as claimed. During the experimental phase of the study, all 80 subjects accepted the final decision of the machine without question or denying it was a true reaction. Given the design of the study, it was impossible to administer a post measure questionnaire concerning the subject's reaction to the apparatus. If such a questionnaire were administered before the value survey (post measure) it might serve as an avenue for dissonance reduction. Administration of such a questionnaire after the value survey was also impossible as it was necessary to announce termination of the experiment before administering the value survey. The value survey was administered under the guise of belonging to some research a fried of the experimenter was conducting. Also, extensive questioning about the apparatus may have aroused the subjects' suspicions about the procedure. As most of the subjects were from the same classes, this could have had disastrous results on the experiment's credibility. It seems safe to assume from the

pre-testing and the subjects' reactions during testing that the manipulation was successful. However, future research should be designed to provide more information on the reactions of the Machiavellian during testing. Given the slippery nature of the high Mach, more information would be helpful in interpreting the data.

It appears that, in designing a study to test Machiavellians, one must not be inexperienced in the ways of guile, deceit and manipulation!

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Appendix A

GENERAL OPINION QUESTIONNAIRE

1. My attitude toward cigarette smoking is . . .
2. My attitude toward legalizing marijuana is . . .
3. My attitude toward a university education is . . .
4. The police do a fair and efficient job of enforcing the law.
5. Religion is a necessary part of my everyday life.
6. My attitude toward premarital sex is . . .
7. The influx of foreign investors will be beneficial to Canadians.
8. The student strike was very beneficial to students at M.U.N.
9. Government sponsored unemployment benefits are a necessary part of today's society.
10. My reactions to the results of the last provincial election were . . .