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THE EFFECT OF NEED FOR APPROVAL AND INDUCED APPROVAL-  
SEEKING ON NON-VERBAL FORMS OF COMMUNICATION

by

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## ABSTRACT

### THE EFFECT OF NEED FOR APPROVAL AND INDUCED APPROVAL-SEEKING ON NON-VERBAL FORMS OF COMMUNICATION

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The purpose of the study was to investigate the effects of need for approval and of induced approval-seeking on non-verbal behavior. Forty-eight male first-year university students were used as subjects. These subjects were trichotomized on the basis of need for approval scores and allocated randomly in equal numbers to an Approval-seeking and a Control group. Approval-seeking was induced, within a standardized interview session, by leading the subjects to believe that their status in a subsequent task would depend on how far they won the approval of the interviewer. Feedback from the interviewer was controlled as much as possible by reducing it to a minimum.

Approval-seeking subjects smiled less frequently than "neutral" subjects. This difference was greater in the second half of the interview than in the first. On the other hand, Approval-seeking subjects nodded more frequently than "neutral" subjects. The other categories of gesture investigated were not significantly influenced by the experimental condition of the subjects, and all except smiles showed a high stability of frequency over a ten-minute period. The personality variable of n-Approval did not produce any main effects. Relating the results to those of other relevant studies, it was apparent that the frequency of these gestures was considerably influenced by the feedback, or lack of feedback, from the interviewer.

Various interpretations of the data were discussed and suggestions for further research were presented.

Approved for the  
Department of Psychology  
by the Examining Committee.

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Date:

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS .....	iii
LIST OF TABLES .....	v
INTRODUCTION .....	1
METHOD .....	5
Subjects.....	5
Procedure.....	5
Dependent Variables .....	8
RESULTS .....	
Smiles .....	10
Nods .....	13
Head Shakes, Gesticulations, Self-manipulations, Posture Changes .....	13
Intercorrelations of Dependent Variables.....	13
DISCUSSION .....	20
Suggestions for Further Research .....	27
SUMMARY .....	31
APPENDICES .....	32
REFERENCES .....	55
VITA .....	56

LIST OF TABLES

Table	Page
1. Mean Number of Smiles within Approval-seeking and Control Conditions for the Three Levels of n-Approval.....	11
2. Mean Number of Nods within Approval-seeking and Control Conditions for the Three Levels of n-Approval .....	14
3. Mean Number of Head Shakes within Approval-seeking and Control Conditions for the Three Levels of n-Approval .....	15
4. Mean Number of Gesticulations within Approval-seeking and Control Conditions for the Three Levels of n-Approval .....	16
5. Mean Number of Self-manipulations within Approval-seeking and Control Conditions for the Three Levels of n-Approval .....	17
6. Mean Number of Posture Changes within Approval-seeking and Control Conditions for the Three Levels of n-Approval .....	18
7. Pearson Product-moment Correlations between the Dependent Variables (N = 48) .....	19

## INTRODUCTION

The purpose of the present study was to investigate such non-verbal forms of communication as smiles and gesticulations within approval-seeking conditions and in relation to need for approval.

Several aspects of approval-seeking have already been extensively studied, including the relationship of approval-seeking to verbal communication, (e.g., Crowne & Marlowe, 1964; Jones 1964). Jones has found differences in the verbal tactics of subjects motivated to seek approval and those not so motivated. In these studies the consideration of the accompanying non-verbal behavior has been little more than incidental. It has been gradually realized, however, that non-verbal cues have an extremely important function in these types of inter-personal relationships. It is Rosenfeld's (1966a, p. 65) contention that, "much, and perhaps most, of the expression of emotional and motivational states occurs on non-verbal levels". He has therefore been concerned (1966a, 1966b) with gestures as clues to the psychological condition of seeking approval.

It may be possible to make predictions about the relationship between gestural activity and approval-seeking behavior on the basis of the "exchange" theories of Homans (1958) and Thibaut and Kelley (1959). As expressed by Homans (1958, p. 597) this theory holds that "interaction between persons is an exchange of goods, material and non-material". In a dyad situation we may therefore regard gestures as an exchange of goods. It might be anticipated that the more costly forms of non-verbal response would tend to be affected when there was an imbalance in this exchange of goods, as when, in the present study, positive feedback was not forthcoming. Thibaut and Kelley (1959, p. 89) suggest that, "For the person holding very

little power... the cost components of... outcomes will be heavily weighted." The term "cost" is understood by these authors (p. 10) to mean the "negative components" resulting from an interaction. If an approval-seeking subject within a dyad situation may be regarded as holding comparatively little power, then whatever he "gives" as a response to the experimental stimuli would appear to him as more "costly" than would the same "giving" to the more powerful "neutral" subject. Thus, the same non-verbal responses would have different cost-values for subjects differing in their approval-seeking motive. The different cost-values of gestural activity for approval-seeking and non-approval-seeking subjects might therefore result in differences in their gestural activity.

In seeking to provide empirical data applicable to these problems Rosenfeld studied approval-seeking in relation to non-verbal behavior. Three main methods were used for establishing his experimental conditions. The first method involved instructing the subjects in the experimental situation to imagine they wished, or did not wish, to win approval from a peer, who was actually a confederate. A second method differed from the first in that, while one subject in the dyad was instructed to seek or avoid approval, the other was a genuine and naive subject. Non-verbal and verbal responses of the experimental member of the dyad were analyzed, in addition to reciprocations of responses. Using a third method, Rosenfeld had each subject carry on a conversation with another subject while both understood that they were waiting for the experiment to begin, and then tested these subjects for n-Approval. In addition to manipulating Approval-seeking, Rosenfeld has also investigated differences between subjects high and low in n-Approval as measured by the Crowne and Marlowe n-Approval scale.



The main findings in Rosenfeld's investigations were that overall gestural activity was significantly higher among approval-seeking subjects, both when approval-seeking was experimentally induced, and when it was related to a predisposition to seek approval. This difference in gestural activity was mainly attributable to smiles and gesticulations. Although Rosenfeld measured six categories of response only four - smiles, nods, gesticulations, and self-manipulations - occurred in sufficient numbers to be subjected to statistical analysis.

In Rosenfeld's first two methods, as outlined above, the subjects in the experimental groups were simply asked to seek approval, which is, in effect, asking the subjects to act the appropriate role. In an attempt to correct this inadequacy, approval-seeking in the present study was manipulated so that the subjects were emotionally involved in seeking approval and their motivation was intrinsic to the nature of the study.

A further problem in Rosenfeld's research is related to his finding that non-verbal feedback from the confederate or naive subject was correlated with particular approval-related responses. Furthermore, Exline (1963) found that subjects high in n-Affiliation made use of glances in a manner different from those low in n-Affiliation. It therefore seems likely that, when such feedback from the interviewer is not controlled, it may influence the interviewee's non-verbal communication. Because of such contamination it is impossible to determine to what extent Rosenfeld's findings were due to his approval-seeking conditions and to what extent they were due to the effects of feedback. An attempt was therefore made, in this investigation, to control for the response of the interviewer by reducing them to a minimum.

It is also likely that, in Rosenfeld's studies, the different

experimental conditions may have had an influence on the nature of the conversations. This could have been unintentional on the part of the subjects, but it is possible that approval-seeking subjects deliberately guided the conversation to topics that would facilitate presenting themselves attractively. Differences in responses may therefore have been due to differences in the nature of the conversations. To overcome this difficulty the verbal stimuli in this study were standardized to a greater degree by asking the subjects to respond to prepared questions, rather than to carry on a spontaneous conversation.

Since the absence of response from the interviewer might have a frustrating effect on the interviewee, or might drive him to greater efforts, it was anticipated that a change in the subjects' responses might take place over time. Therefore, in the present study the interview session was divided, for recording purposes, into ten equal intervals.

In summary, this study sought to investigate various non-verbal forms of communication within approval-seeking conditions and in relation to need for approval, and also to examine the effect of these variables over the duration of the experimental session. An attempt was made to replicate in part Rosenfeld's work and to overcome some of the difficulties which arise in his procedures. Because of the differences in experimental conditions, particularly in feedback, some differences in results were anticipated.

## METHOD

### Subjects

The subjects were 48 male students enrolled in introductory psychology. They were divided into three groups - low, with a score between 0 and 8 inclusive; medium, with a score between 9 and 12 inclusive; and high with a score between 13 and 20 inclusive - on the basis of their scores on the Social Recognition subscale of the Personality Research Form (Jackson, 1967), a scale designed to assess the predisposition to seek approval from others. This subscale, along with 88 filler items, was administered to a large sample independently of the present study.

### Procedure<sup>1</sup>

On arrival the subject was seated at a desk opposite the experimenter. Displayed on the desk was a supply of magazines, colored paper, scissors, pencils, rulers and glue, as well as five large place cards which read, "Supervisor", "Production Manager", "Copy Writer", "Copy Writer", and "Worker", in that order. Subjects in the three personality groups were randomly assigned to the experimental and control conditions. After the instructions<sup>2</sup> designed to induce experimental or control conditions had been given to the subject, he was taken to another room by the experimenter and introduced to the interviewer.

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<sup>1</sup>The procedure used in this study to induce the experimental condition of approval-seeking was adapted from Jones (1964, p. 95)

<sup>2</sup>All verbatim instructions and experimental materials are presented in Appendix B.

Experimental condition. In order to induce subjects to seek approval they were told that they would participate with others in a short task, the purpose of which was to measure productivity in groups with different organizational structures. They were led to believe that their rank in command would be high or low according to whether the "Supervisor", who would interview them later, judged them attractive or otherwise. For example, if judged most attractive he would be made Production Manager, if judged least attractive he would be the Worker. It was also explained that subjects in some of the other groups used in the project would be allocated on a different basis to the various levels of command. In addition, subjects were told that the "Supervisor's" judgment would be based on the subjects' answers to typewritten questions. The "Supervisor" would not respond to the subjects because such responses could influence their answers. With a view to increasing the subjects' motivation it was indicated that the task would follow immediately after the interview and that the subjects participating would probably be known to each other.

Control condition. The instructions for subjects in the Control condition differed from the above only in two respects. The Control subjects were told that they would be allocated at random to the different levels of command, and that the subject's interests, rather than his attractiveness, were to be assessed in the interview session since the experimenter wished to study how productivity would be influenced by the degree of similarity of the interests of the subjects in each of the task groups.

Interview session. The subjects were interviewed in a room equipped with a one-way mirror. The interviewer was seated behind a desk at one end of the room. Towards the other end of the room, near the door, was a

table on which were placed question cards. An armless chair which the subject sat on was sufficiently far from the desk to prevent the subjects leaning their elbows on it. The necessity of staying within reach of the cards on the table prevented subjects moving the chair towards the interviewer. This was of some importance since a study by Rosenfeld (1965) indicated that such increased proximity would be likely to influence gestural activity. The one-way mirror was on the subjects' left, with the subjects facing a point mid-way between the mirror and the interviewer. The interview was ten minutes long. At the end of the ten minutes subjects were allowed to complete their answer and were then told that this was sufficient and that the interview was over.

The interviewer then explained to the subjects that they could not be used in the main part of the experiment because their answers indicated a considerably above-average interest in the kind of task being used in the experiment and there was thus a possibility that their high level of interest might influence production. It was further explained that a few subjects, who had already "passed" the interview, were available at short notice so that the experimental task could proceed. This deception was intended to eliminate the possibility of the remaining subjects being given the information that there was no experimental task after the interview. The interviewer also appealed to the subjects to maintain secrecy.

As previously mentioned, questions were used, rather than an ordinary interview, in order to standardize, as far as possible, the verbal stimuli to which the subject responded. The questionnaire consisted of 22 questions, each typed on a separate card. Each question was designed to be provocative of discussion, rather than of a "Yes or "No" response; to be of some interest to first-year university students; to avoid topics

likely to arouse extreme emotions; to provide some scope for winning approval; and not to be too difficult for a subject to say at least a few words in response.

The interviewer was a male second-year student. In addition to being instructed not to reciprocate the subjects' responses, he was told to make brief notes of the subjects' remarks at varying pre-arranged intervals determined by a timing device, and then to glance at the subjects. A description of the pre-arranged intervals may be found in Appendix B, Table III. Thus, while the subjects were made aware of the interviewer's attention, the interviewer's note-making and glances were not related to the subjects' responses, so that those responses would not be systematically reinforced. When there was a prolonged silence, or when the subject was giving an undesirably long answer, the interviewer suggested that he go on to the next question.

Recording subjects' responses. Two scorers operated from behind the one-way mirror. In order that the interview could be timed in one-minute intervals, one of the scorers, using a stop watch, signaled these intervals to the other. Each wore headphones to prevent him hearing the subjects' verbalization. The scorers were given operational definitions of the dependent variables and received training prior to the experiment. Three scorers were available, two of whom were used at each interview, with all three participating approximately the same number of times.

#### Dependent variables

The dependent variables used in this study were adapted from those used by Rosenfeld (1966a), and were as follows:

1. Smiles.

2. Nods - movements of the head on a vertical plane.
3. Head Shakes - horizontal shakes of the head.
4. Gesticulations - any noticeable movement of arm, hand, or finger, while not in contact with another part of the body.
5. Self-manipulations - movements of one part of the body in contact with another.
6. Postural Changes - gross movements of body trunk, or change in position of the hips.

## RESULTS

An examination of the number of questions answered by each subject showed that this factor was not systematically influenced by either the experimental conditions or the level of need for approval. The data were therefore analyzed without regard for the number of questions answered. The score for each dependent variable, for each subject, was the mean of the two recorders' scores.<sup>3</sup> To study effects over time the ten-minute interview was divided into two equal periods.

Smiles

The mean number of smiles, for periods one and two, within the Approval-seeking and Control conditions for the three levels of n-Approval, is given in Table 1. The corresponding analysis of variance is presented in Appendix A, Table 1<sup>4</sup>. As indicated, subjects induced to seek approval smiled less than those who were neutral in this respect ( $F = 4.2$ ,  $df = 1$ ,  $42$ ,  $p = .05$ ). The Approval-seeking x Periods interaction was also significant ( $F = 9.9$ ,  $df = 1$ ,  $42$ ,  $p = .01$ ). This interaction is graphically illustrated in Figure 1. Control subjects increased their number of smiles from Period 1 to Period 2, whereas the Experimental subjects decreased their number of smiles. There were no other significant differences.

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<sup>3</sup>Inter-observer reliability coefficients (Pearson product-moment correlations) based on the total sample were as follows: Smiles,  $r = .83$ ; Nods,  $r = .82$ ; Head Shakes,  $r = .75$ ; Gesticulations,  $r = .90$ ; Self-manipulations,  $r = .87$ ; Posture Changes,  $r = .87$ .

<sup>4</sup>All analysis of variance tables are presented in Appendix A.



TABLE 1

MEAN NUMBER OF SMILES WITHIN APPROVAL-SEEKING AND CONTROL  
CONDITIONS FOR THE THREE LEVELS OF n-APPROVAL

<u>n-Approval</u>	<u>Conditions</u>				<u>Total</u>
	<u>Approval-seeking</u>		<u>Control</u>		
	<u>Period</u>		<u>Period</u>		
	<u>First</u>	<u>Second</u>	<u>First</u>	<u>Second</u>	
High	.9	1.1	1.9	3.0	1.7
Medium	1.7	.6	1.8	2.2	1.6
Low	<u>2.4</u>	<u>1.6</u>	<u>2.3</u>	<u>3.2</u>	2.4
Total	1.7	1.1	2.0	2.8	

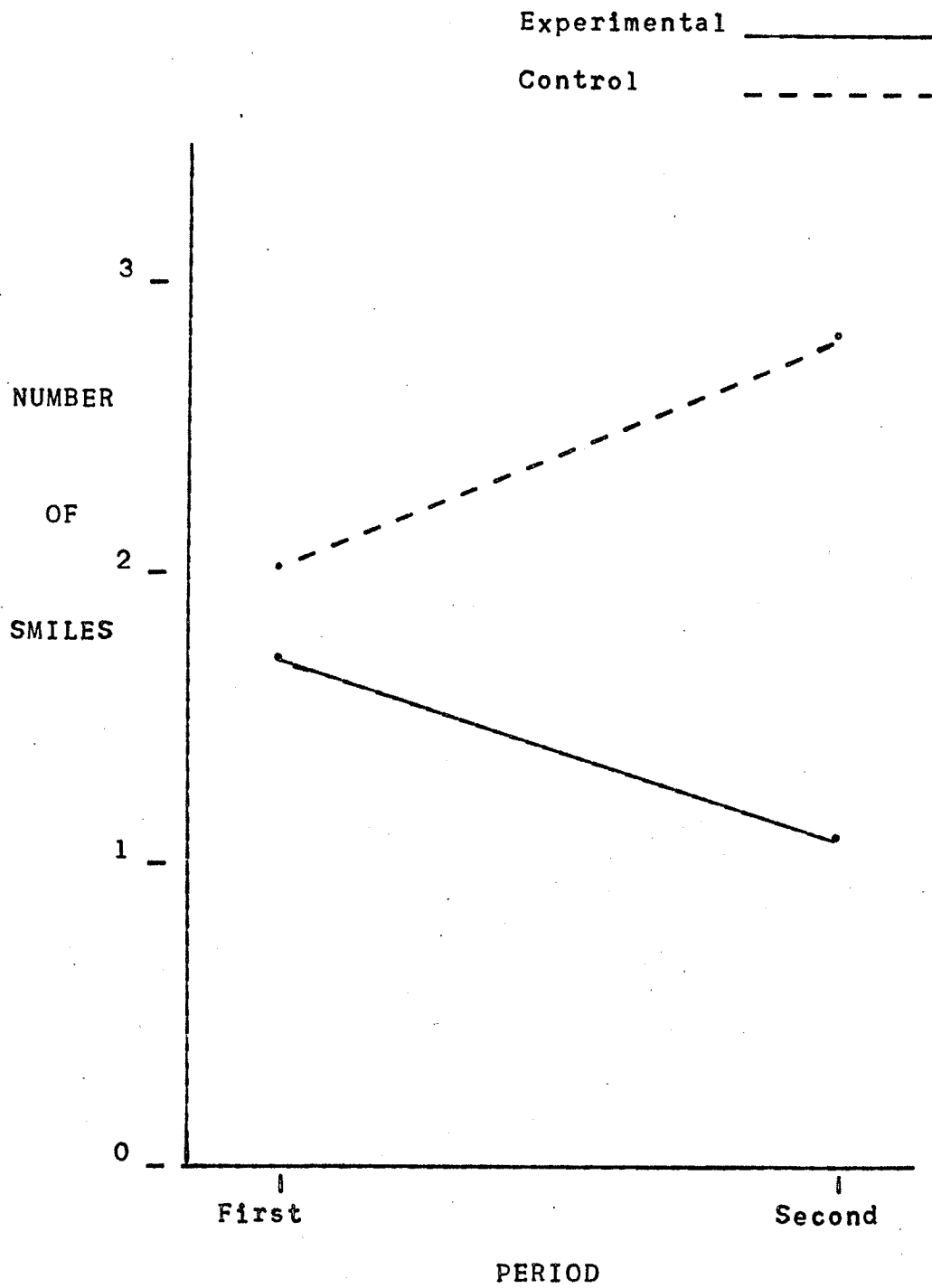


Figure 1. Mean number of smiles for Experimental and Control groups in First and Second Periods.

### Nods

The mean number of nods within Approval-seeking and Control conditions for the three levels of n-Approval is presented in Table 2.<sup>5</sup> As indicated, the subjects seeking approval used significantly more nods than did the "neutral" subjects ( $F = 5.1$ ,  $df = 1, 42$ ,  $p < .05$ ).

### Head Shakes, Gesticulations, Self-manipulations, Posture Changes

The mean number of head shakes, gesticulations, self-manipulations, and posture changes within Approval-seeking conditions for the three levels of n-Approval are presented in Tables 3, 4, 5, and 6 respectively. There were no significant differences within any of these dependent variables.

### Intercorrelations of dependent variables

Pearson product-moment correlations were computed between all the dependent variables and are shown in Table 7. Nods and gesticulations were positively related ( $r = .34$ ,  $df = 47$ ,  $p < .02$ ), as were the dependent variables self-manipulations and posture changes ( $r = .35$ ,  $df = 47$ ,  $p < .02$ ). These correlations were relatively low and no other correlations were significant. Thus, it would appear that these dependent variables are relatively independent from one another.

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<sup>5</sup>For each of the remaining dependent variables there were no significant main effects or interactions for Periods. Thus, in all subsequent analyses, these data were collapsed over the first and second Period.

TABLE 2

MEAN NUMBER OF NODS WITHIN APPROVAL-SEEKING AND CONTROL  
CONDITIONS FOR THE THREE LEVELS OF n-APPROVAL

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	<u>Condition</u>		
	<u>Approval-seeking</u>	<u>Control</u>	<u>Total</u>
n-Approval			
High	7.06	2.00	4.53
Medium	7.19	1.38	4.28
Low	<u>7.75</u>	<u>7.69</u>	<u>7.72</u>
Total	7.33	3.69	

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TABLE 3

MEAN NUMBER OF HEAD SHAKES WITHIN APPROVAL-SEEKING AND  
CONTROL CONDITIONS FOR THE THREE LEVELS  
OF n-APPROVAL

<u>n-Approval</u>	<u>Conditions</u>		
	<u>Approval-seeking</u>	<u>Control</u>	<u>Total</u>
High	9.75	6.94	8.34
Medium	7.63	4.69	6.16
Low	<u>9.12</u>	<u>13.56</u>	11.34
Total	8.83	8.52	

TABLE 4

MEAN NUMBER OF GESTICULATIONS WITHIN APPROVAL-SEEKING AND  
CONTROL CONDITIONS FOR THE THREE LEVELS OF n-APPROVAL

<u>n-Approval</u>	<u>Conditions</u>		
	<u>Approval-seeking</u>	<u>Control</u>	<u>Total</u>
High	12.00	11.38	11.69
Medium	9.75	12.75	11.25
Low	<u>8.12</u>	<u>11.00</u>	9.56
Total	9.96	11.71	

TABLE 5

MEAN NUMBER OF SELF-MANIPULATIONS WITHIN APPROVAL-  
SEEKING AND CONTROL CONDITIONS FOR THE THREE  
LEVELS OF n-APPROVAL

	<u>Conditions</u>		
	<u>Approval-seeking</u>	<u>Control</u>	<u>Total</u>
<u>n-Approval</u>			
High	23.44	36.81	30.12
Medium	35.00	36.44	35.72
Low	<u>26.88</u>	<u>31.25</u>	29.06
Total	28.44	34.83	

TABLE 6

MEAN NUMBER OF POSTURE CHANGES WITHIN APPROVAL-SEEKING  
AND CONTROL CONDITIONS FOR THE THREE  
LEVELS OF n-APPROVAL

<u>n-Approval</u>	<u>Conditions</u>		
	<u>Approval-seeking</u>	<u>Control</u>	<u>Total</u>
High	14.19	9.69	11.94
Medium	8.12	11.25	9.68
Low	<u>12.19</u>	<u>8.69</u>	10.44
Total	11.50	9.88	



TABLE 7

PEARSON PRODUCT-MOMENT CORRELATIONS BETWEEN THE  
DEPENDENT VARIABLES (N = 48)

	(1)	(2)	(3)	(4)	(5)	(6)
1) Smiles		-.23	.05	-.09	.15	-.05
2) Nods			.17	.34*	-.06	.25
3) Head Shakes				.04	-.23	.13
4) Gesticulations					.07	.20
5) Self-manipulations						.35*
6) Posture Changes						

\*  $p < .02$

## DISCUSSION

It would appear that approval-seeking subjects smile less frequently than "neutral" subjects. In addition, "neutral" subjects tended to increase the number of smiles over time, and approval-seeking subjects to decrease this number. On the other hand, approval-seeking subjects nodded more than "neutral" subjects. Considerably fewer smiles were recorded than any other response, and considerably more self-manipulations than any other gesture.

It may seem surprising that a subject seeking approval smiles less than a subject who was not concerned with winning approval, since smiling would seem to be one of the most obvious ways of obtaining approval. A possible interpretation is that the stress of seeking approval had an inhibiting effect on the subjects' self-expression, and that this effect was manifested mainly in the reduction of smiles. It might also be suggested that the induced Approval-seeking condition increased the anxiety of the subjects in that condition, and that the differences obtained were the result of anxiety and not of the Approval-seeking conditions. Such an explanation was not supported by the casual data obtained from a post-experiment questionnaire. This questionnaire consisted of a six-point scale ranging from "extremely uneasy" to "completely calm". Approval-seeking subjects did not indicate any greater anxiety within the experimental session than did "neutral" subjects. This suggests that results obtained in this study were not due to effects of anxiety. A further possible interpretation is that the subjects in the approval-seeking condition encountered a conflict between, on the one hand, their desire to obtain approval and, on the other, the psychological necessity of convincing themselves, and the strategic necessity of convincing the target person, that they had no such

approval-seeking motives. Such an interpretation is supported by Jones (1964) who found that subjects wishing to present themselves attractively and to win respect faced the dilemma of achieving these results by conforming, "without appearing to conform and without having to acknowledge their conformity to themselves." (pp. 98-102). In trying to conceal that he was seeking approval the subject was apparently over-cautious and tended to defeat his purpose by reducing his smiles to an extent greater than was appropriate for concealing his approval-seeking motives. Further weight is given to this interpretation by the findings of Ekman (1967) whose data support the hypothesis that "purposeful deception head cues are much more under the command of the deceptive processes" than are body cues. This seems to imply that head expressions, and perhaps smiles in particular, are to some extent under conscious control, in such situations, and would therefore be subject to the miscalculation suggested above.

Not only did the subjects of the two experimental groups express themselves differently in the number of smiles they employed, but this difference increased from the first to the second period. In general, it would seem that the factors discussed above in relation to the small number of responses from approval-seeking subjects apply, to an even greater extent, as the interview progresses. Apparently the absence of response from the interviewer either inhibited the approval-seeking subjects still further, or increased the conflict already mentioned, and those subjects reacted by being less willing to disclose themselves, or by lowering still further their estimate of the number of smiles that could safely be used without revealing their approval-seeking motives. It would seem a likely conclusion that the longer a person continues to produce smiles, without the smiles being reciprocated, the more inappropriate the smiles become. The "neutral" subjects appear to