

**AN INVESTIGATION OF THE  
RELATIONSHIP BETWEEN COMMUNICATION DENIAL  
AND SOCIAL ALIENATION**

**by**

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## CHAPTER I

### INTRODUCTION AND PREVIOUS RESEARCH

Speech is civilization itself. The word, even the most contradictory word, preserves contact--it is silence which isolates.

(Thomas Mann)

The comprehensive study of which this thesis is a part, is concerned with a description of the communication factors which are involved in the process of social alienation. The "alienated" are those who are estranged or withdrawn from persons with whom they are expected to interact.

Throughout this study, "alienation" will refer only to social alienation unless other connotations are specified. Common usage of the term "alienation" often connotes psychological alienation. Hinsie and Campbell (1960), in their Psychiatric Dictionary, define psychological alienation as:

The repression, inhibition, blocking or dissociation of one's own feelings so that they no longer seem effective, familiar, or convincing to the patient (p.26).

Social alienation is conceived as the process whereby an individual becomes estranged. As conceived by Giffin (1968):

Alienation is not simple disagreement with another person, even if the disagreement is violent, so long as interaction continues.

Acceptance of the notion that one cannot communicate with another person or persons and consequent withdrawal from interaction constitute true alienation. In this way one can become alienated from a person or a group--a brother, sister, mother, father, husband, wife, teacher, peer group, a school, a reference group, or even an entire culture or social system. Alienation then involves acceptance of the notion that attempts to communicate (or interact) are pointless. At this point functional withdrawal from interaction begins (pp. 8-9).

A great deal of research and study remains to be done in clarifying the construct of alienation from the point of view of communication process, and the present study is an effort toward that end.

One of the elements involved in this conceptualization of alienation appears to be the experience of repeated communication denial. The purposes of this thesis are: (1) to construct a Likert-type summated rating scale to measure the degree of communication denial experienced by different individuals; (2) to identify the major dimensions of the experience of communication denial; and (3) to determine the degree of correlation between the amount of communication denial experienced by an individual and the extent to which he feels alienated from others.

The present study will focus on the kinds and degrees of communication denial rather than directly on the individual's reactions in communication denial experiences. The latter consideration is of importance to the general study described above, and will receive

attention herein. However, the emphasis of the present study will be on the perceived experience of communication denial.

It is important to note that the appropriateness of communication denial is not being explored. This researcher grants that communication denial may be considered in some circumstances to be a means of behavior modification. Further, there is no evaluation of the motives of the person who is denying communication. The study makes no distinction between intentional or unintentional communication denial and completely disregards the purpose of the communication denial. The emphasis is solely on the individual who perceives some degree of communication denial in a given relationship.

This study tends to hold the position that repeated denial of communication is damaging to an individual and a relationship because it represents a form of disturbed, dysfunctional communication.

### The Significance of the Project

Problems of communication are not restricted to pathological instances; they are very much within the realm of "normal", diurnal interactions. Comments about the "alienated generation" or the "alienated teenager" frequent conversations about current social issues.

Social psychologists and sociologists have long been interested in the concept of alienation as a sociological, societal phenomenon. However, a thorough examination of the interpersonal, communication dimensions of this problem remains to be studied.

The present thesis is a preliminary stage in the study of alienation, which can be a significant contribution to the understanding of communication behavior. Successful communication is a vital area of concern, and the study of disturbed communication is necessary if communication behavior in general is to be well understood.

Dance (1966) has suggested three functions of speech communication: (1) the integration of the individual with his milieu; (2) the regulation of behavior both internal and external; and (3) the development of mental processes. The absence or denial of speech communication in an individual would stifle the development of these functions and, according to Dance, the degree of underdevelopment would be proportional to the degree to which the speech communication is disturbed (p.301).

When the development of these functions is frustrated, the individual is left in an untenable, alienated position. It is in this line of thought that the present paper approaches the communication dimensions involved in the process of social alienation.

## Review of Previous Research

The following review of the literature will establish the theoretical foundations on which the conceptualization of the experience of communication denial is based.

Literature in this area has revealed (1) theoretical foundations allowing a construct to be formulated and (2) clinical observations of the consequences of communication denial. The study of communication denial as a process has not been reported. Facets of the concept have been studied under a variety of terms; the most frequent appear to be "ignoring" and "rejecting".

### The Concept of Denial

A review of certain interpersonal communication principles and their relevance to satisfying interpersonal interaction will facilitate an understanding of communication denial.

In an interpersonal situation, man communicates on two levels, the "denotative level" and the "metacommunicative level". The first level is that which carries the message, the literal content. The nonverbal "metacommunicative level" is, according to Satir (1967), "a comment on the literal content as well as on the nature of the relationship between the persons involved...Metacommunication is a message about a message." (p. 76).

In an interpersonal situation, the degree of congruence between the metacommunication and the denotative communication will influence the nature of the interpersonal relationship and the interpretation of the received communication.

Watzlawick (1967) states that, " a metacommunicational axiom of the pragmatics of communication can be postulated: one cannot not communicate." (p. 51). He uses the schizophrenic as an example of one who tries not to communicate, and, despite his efforts, still communicates; "But since even non-sense, silence, withdrawal, immobility (postural silence), or any other form of denial is itself a communication, the schizophrenic is faced with the impossible task of denying that he is communicating and at the same time denying that his denial is a communication." (pp. 50-51). The logic of this axiom appears to hold for any communication situation; when communication is denied the fact of the denial is still communicated.

Satir (1967) contends that all denotative and metacommunications carry an implied request, "Validate me". (p. 81). As demonstrated above, one cannot refuse to respond to this request.

Laing (1961) refers to the response one makes to this request as a measure of "confirmation"; "One can think of individual actions and interaction sequences as being, more or less, and in different ways 'confirmatory'

or "disconfirmatory'." (p. 89).

There are three ways in which a person can perceive a response to his implied request for validation: (1) agreement--a person or his idea is confirmed; (2) disagreement--the person or idea is disconfirmed; and (3) denial--denial of the existence of the question. To refuse to give any response at all not only denies the existence of the request "validate me", but by implication, denies the existence of the other person on a functional, interpersonal or communication level.

The second response may be a form of the third, denial. However, the third response is not necessarily disagreement. It is "anti-communication"; a flat refusal to acknowledge the message and/or the sender.

Disagreement is further distinguished from denial by Laing (1961) when he describes how a "tangential response", a form of denial, is invalidating and mocking to the original sender, while simple disagreement, which he terms rejection of the idea, makes no comment on the original action, and disagreement, "is not necessarily synonymous with indifference or imperviousness." (p. 90).

Denial is not an uncommon reaction to the communication of another. In a study of interaction between parents and preschool children, Lafore (1945) found that the communication of the children was ignored more often when it was positive than when the parent might have had

reason to ignore it because the parent disapproved of, or disagreed with, the child.

Ignoring the child presented the (81) largest number of negative practices that seemed to have a bearing on the child's social development...Fourteen of the items represented situations in which the parent ignored infringements or complaints of the child, and sixty-seven items represented incidents in which the parent ignored "legitimate" claims of the child (appeals, questions, affectionate overtures, etc.) (p. 134).

Of importance to this study is the range of responses of a person who has experienced communication denial. The reactions include some degree of (1) a refusal to accept the denial, or (2) a resignation to the implication of invalidation by the other.

An immediate refusal to accept the implications of denial may be compared with what Rosenberg and Abelson (1960) term "unstable interpersonal cognition". This situation exists when there is an inconsistency between perceptions of belief and feelings or belief and experience. A person confronted with denial, but unwilling to accept it will attempt to stabilize his situation by taking some action which will make his perceptions consistent with his feelings or beliefs (p. 114). In attempting to stabilize this situation the individual experiencing communication denial may (a) repeat his communication; (b) escalate the level of communication by some means, such as increasing the tone, volume or pitch in verbal communication, or increasing the accompanying physical

movements; and (c) overtly question the denial.

If the person chose the first alternative and repeated his message he might find one of the following:

(i) that he now could evoke a rewarding response; (ii) that he had not experienced denial in the first place; or (iii) that he might experience denial again.

If the individual escalates his communication as a response to perceived denial, the above three reactions to his increased communication are again possible.

However, if the other person responds to him because of the escalation, it will be reinforced as effective, expedient or appropriate communication because it is capable of evoking a response. Lafore (1945) supports this idea:

Ignoring the child seemed also to be a practice which tended to accentuate undesirable behavior. It was noted that many of the child's appeals, questions and comments which were ignored were made in either soft or conversational tones of voice. This raised the question of whether children might find it necessary to scream in order to elicit a response. Moreover, the parents in this study ignored good behavior of the child five times more often than they ignored infringements or complaints of the child. If legitimate and desirable claims are ignored by the parents and undesirable behavior commented upon, surely a child who wants attention will resort to undesirable behavior (p. 55).

The alternative of directly confronting the one who has denied communication, specifically requesting an explanation of the denial, does not appear to be a frequently used approach. As Giffin (1968) points out,

"It should be noted that such overt metacommunication is rarely initiated by the person in the weaker 'one-down' position who feels threatened, and the denial of one's existence ( on any level) by a valued other will produce a feeling of threat." (p. 8).

Resignation to the implication of denial or invalidation or disconfirmation can result in a myriad of responses and reactions depending on (1) the value of the communication by the one experiencing denial, and (2) on the intensity and frequency of denial experiences.

#### The Effects of Experienced Denial

Lafore (1945) recounts two types of reactions by children to denial experiences: (1) "the adult received many instances of teasing or nagging from the child" and (2) " ignoring seemed effective in securing the cessation of the child's activity." (p. 141).

Laing (1961) describes the consequences of communication denial in the following example:

The characteristic family pattern that has emerged from the study of families of schizophrenics does not so much involve a child who is subject to outright neglect or even to obvious trauma, but a child whose authenticity has been subjected to subtle, but persistent, mutilation, often quite unwittingly (p. 91).

Laing concludes that the process of disconfirming the authenticity of a person puts him in an alienated or untenable position.

The data on interpersonal experience and action... offer numerous instances of persons who put themselves and others, and are in turn put by others, into various false or untenable positions. Anyone attempting the development of a theory of 'alienation' in this sense will be wise to give ear to two sets of colloquialisms, which point in the first place to the 'position' the person can put himself or the other into, and in the second place, to the position the person may be put into by the actions of others (p. 116).

Laing offers further insight into the effects of such action:

The ultimate of this is when one is placed in an untenable position, that is, when no matter how he feels or how he acts, no matter what meaning he gives the situation, his feelings are denuded of validity, his acts are stripped of their motives, intentions, and consequences, the situation is robbed of its meaning for him, so that he is totally mystified and alienated (p.136).

#### The Dimensions of the Concept of Communication Denial

According to Ruesch (1957), one of the factors involved in the genesis of disturbed communication is the absence of an appropriate response to a message. "Appropriate response, therefore, is one of the most important factors for psychological growth...An appropriate response clarifies;...unsatisfactory acknowledgment, in contrast, has devastating effects." (p. 53).

Ruesch also describes a tangential reply as the receiver's refusal to take cognizance of the intent of the sender by replying to an incidental aspect of the original statement. The tangential reply is a form of communication denial and Laing (1961) employs the term in

a similar context. Ruesch maintains that the tangential response "...constitutes one of the most frustrating forms of communication...(it has) damaging implications for communication."(p. 79).

Ruesch also notes a type of response to a child's question which he sees as ill matched in terms of modality with the child's statement, " the completely unrelated reply" (p. 83) . Modality refers to the kind and level of the child's original statement:

The most effective way of steering perception toward healthy growth is to respond to the initial statement of the child by using the same modality ...Replies that are ill matched in terms of modality may lead to the development of pathology.

Lafore (1945) concurs with Ruesch's evaluation in the concluding statements of her study. "The parent who diverts his child's demands either by ignoring them or by grudgingly responding in some casual fashion is in reality blunting the edge of the child's inquiry into his world and dulling his interests in meeting and handling his day-to-day situations." (p. 145).

Another negative communication experience tending to impair the individual's self-concept which may discourage attempts to interact, is suppression of communication.

Heider (1968) reports that:

If a child's communication encounters negative feedback, negative feelings about himself are likely to follow. He evaluates his opinions by checking with others and finds his ideas negatively received.

Continued attempts at self-expression, met by parental suppression, are likely to produce an undesirable self-concept.

The concepts described above by Ruesch, Laing and Heider are included in the concept of "rejection", developed by Moustakas, Sigel and Schalock (1956, pp. 116-117). Rejection, as they conceive it, contains many elements of the concept of communication denial. It is significant that communication and metacommunication, as described above, are both considered in their description of "rejection":

Rejection. A (adult) indicates nonacceptance of A and/or C's (child's) stimulation, either verbally or gesturally; or C responds to A in this way. (1) A changes the subject or interrupts C with irrelevant conversation; or C responds to A in this manner. Ex: (C asks A to help him build a swing with tinker toys. A changes the subject saying, "You haven't painted today yet.") Ex: A: Pick up the blocks. Ex: C: It's cold in here, isn't it? (2) A denies the validity of C's statement or action; or C responds to A in this manner. Ex: C: I'm a good boy. A: No, you are a bad boy. Ex: A: That's a house. C: No, it's not a house. Ex: (A shakes head negatively.) (3) A rejects C as a person; or C rejects A as a person. Ex: I don't want anything to do with you. Ex: (C asks A to play with him. A walks away.) (4) A makes a direct appeal to C, and C ignores or evades him; or the appeal is made by C and A ignores or evades him. Ex: (C looks at A and asks, "Do you like me?" A does not respond.) Ex: A: Don't you think this is a nice picture I have made for you? (C does not respond.).

In describing the method of therapy with children, Moustakas (1959) sees unhampered, non-critical acceptance of the child's verbal communication as vital:

Although interpretation and explanation are sometimes used in this therapy, it is the child's new experiencing of himself, with a person who accepts him as he is, that gives clarifying value to these (therapy) methods. Free verbal expression of the child is encouraged by the therapist, but the value of talking is less in the particular content and more in the freedom to talk. The child who gains the freedom to talk has gained the freedom to share himself (p. 3).

Moustakas indicates that repeated experiences of denied opportunities to share or to communicate lead to self-deprecation and rejection:

At the root of the child's difficulty is the submission and denial of his self...The growth of the self has been impaired because of his rejection in important personal relationships. He has been severely rejected by others and has come to reject himself (p.3).

Foote and Cottrell (1957) suggest another dimension of communication denial experiences in their discussion of the development of empathetic capacity. They believe that denial of communication inhibits this development in an individual. According to Foote and Cotrell, empathy is "the basic response capacity on which the processes of socialization, development of a self, communication, and integration rest." (p. 71). They state:

There is a positive linear relation between the empathetic capacity of a person at any point in his career line and the extent to which his previous development has been characterized by stable, intimate communicative relations of relative equality and reciprocity with the members of his family (p. 75).

Foote and Cottrell state that affection is definitely a positive factor in the development of empathy, but, "its relative effectiveness is a function of the amount of communication sustained in the relationship! (p. 75).

Another related factor of communication denial is the perception of empathy. It would seem that an individual experiencing communication denial would perceive low empathy emanating from the receiver. Although Truax (1967) discusses the client-therapist relationship, many of the principles he employs in his "Scale for the Measurement of Accurate Empathy" can be applied in other interpersonal communicational settings. He states that "At a high level of accurate empathy the message 'I am with you' is unmistakably clear", and that at a low level of empathy, "the therapist is doing something other than 'listening', 'understanding' or 'being sensitive'." (p. 46).

In his schematic presentation of the "Scale for the Measurement of Accurate Empathy", Truax shows that the response of the individual with low empathy at every level of reaction (obvious feelings, veiled feelings, and preconscious feelings) is "ignores" (p. 59). It is possible to conclude that the individual experiencing communication denial will be perceiving a lack of empathy.

## The Concept of Social Alienation

Prior research in the area of social alienation suggests three major socio-psychological facets of estrangement: (1) normlessness, (2) powerlessness, and (3) social isolation.

Normlessness, as used by Dean (1961), is similar to anomy. Dean proposed two types of normlessness: (1) purposelessness, an insufficient incorporation of meaningful social values, and (2) conflict of norms, a person's incorporation of contradictory norm alternatives into his personality (p. 757).

Seeman (1959) refers to "meaninglessness" as a type of normlessness. "Meaninglessness refers to the individual's sense of understanding of the events in which he's engaged... (an alienated individual) is unclear as to what he ought to believe--when the individual's minimal standards for clarity in decision making are not met." (p. 786).

Neal and Rettig (1963) graphically describe normlessness as: "(it) denotes expediency, cynicism and distrust." (p. 608).

McClosky and Schaar (1965) have cited several psychological dimensions of anomy (normlessness). These dimensions include: (a) cognitive factors, which are affected directly by communication experiences, (b) emotional factors, which may tend to lower one's ability to perceive reality correctly, (c) substantive beliefs

and attitudes or a deviant set of values which "reduces communication and makes socialization into the group even more difficult." (pp. 21-22).

Powerlessness described by Dean (1961) is a feeling of helplessness with regard to an individual's own destiny and the existing social conditions (p. 757).

Social isolation is a feeling of isolation from the group. Dean (1961) suggests that alienation may not be a personality trait, but a situation-induced phenomenon. (p. 757).

In his work with student intellectuals, Hajda (1961) discovered possible social forces affecting alienation. These forces include exclusion, subordination, discontinuity, discrepancy, and isolation. Alienation is directly influenced by the personal primary groups, such as the family, and, according to Hajda, alienation varies with the number of collectivities to which an individual belongs (p. 759).

### Summary

The literature thus reviewed gives evidence of the existence of a definite communication behavior problem identified here as communication denial; it also provides a foundation for the exploration of the relationship between communication denial and social alienation.

There was a persistent attempt throughout the study of the literature to conceptualize the experience of communication denial. These principles of the experience of denied communication appear to be evident from the literature surveyed:

1. Communication denial is an experience which is perceived by the sender. A communicator perceives that the receiver has refused to acknowledge his message, his existence, or both.
2. Once communication denial has been perceived by the sender, he will react to it whether denial has actually occurred or not.
3. The denial constitutes a disconfirmation of the one who experiences the denial.
4. Denial may be expressed by the receiver through nonverbal metacommunication or by verbal, denotative channels.
5. The receiver may or may not be aware that he is denying the communication of the sender; in so doing, however, he tends to show a low degree of empathy.
6. Infrequent denial experiences may not have significant effects on a person, but persistent disconfirmation may cause alienation and even serious psychological disturbance.

#### Definitions of Major Concepts

Communication denial may be said to have occurred when a communication initiator (sender) perceives that he has been rejected by the "other". The sender perceives that he is not allowed to communicate at that time, on that topic--his existence as a functional communicator is denied.

Three major types of communication denial experiences have been suggested in the literature.

A. Suppression. As defined by Heider (1968) suppression occurs "when a child who desires to express himself obtains negative reactions from his parents." For purposes of this study, the concept of suppression will not be restricted to parent-child communication. The concept will be applied to any communication situation in which a sender desires to express his ideas verbally in what to him is a satisfying manner and finds his speaking met with negative reactions from the receiver, and those negative reactions are perceived by the sender to be directed at his act of communication rather than at the message. These negative reactions may include ignoring the sender, the message or both.

B. Tangential Response. Ruesch (1957) describes a tangential response as the receiver's refusal to take cognizance of the intent of the sender by replying to an incidental aspect of the original statement, or by replying with an entirely new line of thought, ignoring the original message.

C. Overt Denial. In this form of denial, the speaker is met with a direct response which demands the immediate cessation of communication at that time, on that topic by that communicator. "Don't talk to me," "I won't discuss that," or "I refuse to continue in this vein," are examples of overt denial.

Communication denial was measured by a communication experience inventory developed as a major part of this study. Communication denial has been operationally defined as a score on that inventory.

Social alienation is defined by Hajda (1961) in the following way:

Alienation is an individual's feeling of uneasiness or discomfort which reflects his exclusion or self-exclusion from social and cultural participation. It is an expression of non-belonging or non-sharing, an uneasy awareness or perception of unwelcome contrast with others. It varies in scope and intensity. It may be restricted to a few limited situations, such as participation in a peer group, or it may encompass a wide social universe, including participation in the larger society...In this sense, alienation is a general social phenomenon, a feeling that may be experienced in some fashion by any member of a given society. It cannot be understood apart from its opposite, the feeling of belonging, sharing, or participation which follows from the individual's inclusion or integration into the social collectivities (pp. 758-759).

#### Specific Problems to Be Studied

The specific goals of this thesis are (1) to devise an instrument which will indicate the degree of

communication denial experienced by a person, (2) to identify the major dimensions of the experience of communication denial, and (3) to attempt to establish a correlation between the perceived experience of communication denial and social isolation.

It is the broad aim of this study to establish a theoretical and practical framework, based on the data obtained, for further exploration of social alienation by communication denial. This communication aspect of alienation is relatively unexplored. The relationship of communication denial to social alienation needs to be studied directly.

## CHAPTER II

### METHODOLOGY AND PROCEDURE

Data for the study were obtained and analyzed through the following sequence:

- I. The development of a Likert-type summated rating scale to identify the degree of communication denial experienced by a person.
  - A. A thorough review of the literature for detection of theoretical bases and discovery of possible, potentially important dimensions of communication denial.
  - B. Critical judgment of the inventory items by experienced individuals.
  - C. The administration of a pre-test of the communication denial instrument to a small sample of the population, interviews with these subjects, and revision of the instrument as needed.
  - D. The administration of the communication denial experience instrument to ten randomly selected classes of Fundamentals of Speech at the University of Kansas during the Spring Semester of 1969.
  - E. An item analysis of the communication denial inventory.
  - F. A factor analysis of the denial instrument data.
  - G. Development of a revised form of the instrument based on the results of the item analysis and the factor analysis.
- II. The administration of a standard instrument, the Public Opinion Questionnaire, to measure social alienation to the same population responding to the communication denial experience inventory.

III. Statistical comparison of the data obtained from the revised communication denial inventory with the data from the Public Opinion Questionnaire to determine the extent to which the relationship exists between discovered factors in communication denial experiences and social alienation.

The following is a description of the methodology outlined above.

#### I. Development of the summated rating scale.

Communication denial was defined earlier as a response perceived by a person when his communication appears to be futile; when attempts to communicate at that time on that topic with that receiver are denied. His existence as a functional communicator is denied.

The basis for construction of the items for the summated rating scale were the following tentative factors of communication denial which were identified in the literature.

- A. Frequency
  - 1. Frequency of denial experiences
  - 2. Frequency of encouraging communication experiences
- B. The value of the communication experiences to the speaker
- C. Reactions to denial experiences
- D. Types of denial experienced
  - 1. Suppression of communication
  - 2. Tangential reply
  - 3. Direct denial of communication
- E. Empathy
  - 1. The perception of empathic capacity in the person experiencing communication denial.
  - 2. The perception of empathy in the receiver by the individual experiencing communication denial.

### The Pilot Study

The original list of items was compiled and submitted to a panel of graduate students and faculty experienced in test construction for critical analysis. The panel was concerned with content, wording and structure so as to assure face validity of the items. Securing face validity implies that the conceptualization is clearly understood and that the items are consistent with the principles and constructs inherent in the conceptualization.

The criteria by which the items were judged were those used by Moustakas, Sigel and Schalock in their selection of items for an observation instrument. These criteria include: (a) comprehensiveness, (b) relevance and meaningfulness, and (c) ease of identification (1957, p. 111).

Comprehensiveness is used to judge whether the items are inclusive of the communication behaviors revealed in the literature. Relevance and meaningfulness evaluate the items on the basis of their pertinence to the objectives and the degree to which they appear to describe an individual's experience. Ease of identification refers to mutual exclusiveness of the items. That is, do the items discriminate or are they repetitive?

The ninety-four items resulting from the pilot study appear in Appendix A.

### The Method of Summated Ratings

The Likert-type summated rating scale was developed to collect data about the experience of communication denial. The summated rating scale consists of a series of items to which the subject is asked to react, and only items with which the subject can agree or disagree to the situation presented are used.

In this form of the summated rating scale, the subject rates his response to an item from "strongly agrees" to "strongly disagrees" on a scale with five categories indicating "strongly agree", "agree", "undecided", "disagree", "strongly disagree".

Each item was scored on a five point range with the most favorable response given the highest score.

For favorable statements the strongly agree response will be given a weight of 4, the agree response a weight of 3, the undecided response a weight of 2, the disagree response a weight of 1, and the strongly disagree response a weight of 0. For unfavorable statements the scoring system is reversed (Edwards, 1957, p. 151).

Whether the "strongly agrees" or "strongly disagrees" response was favorable depended on the content and wording of the item. For example, "His response to me cuts off further communication" is an item to which a "strongly agrees" response would express the perception of denied communication and that response would be given a weight of 4. The higher the total score, the greater the degree of communication denial perceived by a subject.

The total score was obtained by summing the scores of the individual items (Edwards, 1957, pp. 151-152).

The inventory scores are an indication of the way an individual perceives his experiences of denied communication.

The Likert-type summated rating scale is suitable for obtaining a measure of an individual's perception of each statement at a point on the continuum (SA to SD) for that item. Because internal consistency was a goal in the construction of the test, the summated rating scale also offers a measure of an individual's perception of his full range of experiences of communication denial as measured by the instrument. This measure was obtained by summing the scores of the individual items.

### The Pre-test

The ninety-four item scale was administered to one section of Fundamentals of Speech students for a pre-test. The test was constructed using the ambiguous "He" in the statements, rather than specifying a given figure. For example, "He usually avoids communication with me". The subjects were asked to respond to the items with reference to one of the following: (a) academic advisor, (b) resident director, or (c) instructor of the course (Fundamentals of Speech).

After the pre-test, the subjects were interviewed to help determine the clarity and effectiveness of the inventory items, and to assist in establishing face validity of the items. The criteria for the subjects' evaluation was, as above, comprehensiveness, relevance, meaningfulness, and ease of identification.

The subjects reported that they encountered no difficulty with the instrument and that the items were worded satisfactorily.

#### Administration of the Summated Rating Scale

The communication denial experience inventory was administered to ten sections of Fundamentals of Speech students which were randomly selected during the Spring semester of 1969 at the University of Kansas.

Fundamentals of Speech is a requirement for undergraduate students enrolled in the College of Liberal Arts and the schools of Education, Journalism, and Fine Arts at the University of Kansas, so the students were fairly representative of undergraduate students.

Poore (1970, pp. 31-32) collected demographic data from random samples of Fundamentals of Speech classes and compared this data with records from the Office of the University of Kansas Registrar to demonstrate that a random selection of Fundamentals of Speech sections is representative of undergraduate enrollment at Kansas University.

### Item Analysis of the Communication Denial Inventory

Edwards (1957) suggests the t-test for an item analysis of a summated rating scale. The purpose of this statistical treatment is to determine which items on the scale differentiate significantly between the upper quartile of scores and the lower quartile of scores. The .01 level of significance was chosen ( $t = 2.3451$ ). The SCAT program was used for the t-test. SCAT summed the scores of all items for each subject, formed a frequency distribution, determined the means of the upper and lower quartiles, and provided a t-statistic for each item, indicating the discriminating power of each item.

### Factor Analysis of the Denial Instrument Data

The principal concern of factor analysis is a parsimonious description of a set of variables or items. This is accomplished by analysis of correlations among those variables. The analysis resolves the variance of the items in terms of small factors which represent basic categories among the variables. The principle components or principal axes method was employed in this study. Harmon (1967) suggests that the principal axes method of factor analysis is a "statistically optimal solution".

(p. 4)

If one were to make his choice (of factor analytical methods) entirely upon statistical considerations, a rather natural approach would be to represent the original set of variables in terms of a number of factors, determined in sequence so that at each successive stage the factor would account for a maximum of the variance (p. 4).

In some analyses, rotation of the axes is necessary in order to facilitate interpretation. However, rotation of the axes did not appear necessary in this study in as much as meaningful factors were a result of the original factor analysis. Harmon (1967) states that on occasion a principal factor solution is an adequate analysis of a correlation matrix with further rotation unnecessary (p.179).

The programs which were employed for the factor analysis included SFAØ1B and SFAØ3A. Both were obtained from the Program Library of the University of Kansas Computation Center. SFAØ1B provided the correlation matrix and SFAØ3A calculated the factor loadings for the principal components analysis.

#### Development of a Revised Form of the Summated Rating Scale

The data from the summated rating scale was re-evaluated on the basis of the results of the item analysis and factor analysis. Only those items which were shown to discriminate between the mean scores of the upper and lower quartiles of subjects and which also had a high loading on one factor were retained in the revised form of the instrument. The specific statistical information

regarding critical ratios and "cut points" may be found on page 35.

### Reliability Tests on the Summated Rating Scale

A Kuder-Richardson Formula 20 and a Spearman-Brown coefficient of reliability were obtained as measures of internal consistency of the summated rating scale.

There are several methods of testing the reliability of an instrument. The test-retest method yields a coefficient of stability. This method is infrequently used because it requires a high level of motivation on the part of the subjects, and it is difficult to account for the interference the first test might cause the second. An equivalent forms method is often used to test the internal consistency of a scale. However, because of the developmental nature of this study, this method was not employed.

The two methods used in this study to measure reliability were the Spearman-Brown and the Kuder-Richardson Formula 20 formulas. These methods measure the internal consistency of the summated rating scale.

The Spearman-Brown "split-halves" or "odd-even" method produces a coefficient of reliability based on a correlation between the sum of the odd numbered items and the sum of the even numbered items on a subject's test.

Where the "split-halves" technique is based on consistency in the student's test performance on different items, the Kuder-Richardson method involves a study of inter-item consistency. The Kuder-Richardson Formula 20 yields a reliability coefficient which approximates the average of all split-half coefficients which would be obtained on all possible divisions of the test into equivalent halves (Adams, 1964, pp. 87-88).

## II. Administration of the Public Opinion Questionnaire

The instrument chosen to measure the degree of social alienation was Dean's Public Opinion Questionnaire.

Dean's scale of twenty-four items is composed of three subscales measuring: (1) Normlessness, (2) Powerlessness, and (3) Social Isolation.

Normlessness, as used by Dean, may consist of purposelessness or conflict of norms, defined earlier in the literature review. Powerlessness is a feeling of loss of effective control of an individual's destiny--helplessness (1961, p. 754). Social Isolation is a feeling of isolation from group standards or from the group (pp. 755-756).

Dean reports that reliability of the scale and subscales was tested by the "split-halves" technique using the Spearman-Brown formula. The reliability for the six Normlessness items was .73 (N=384). The reliability of

the nine items in the Powerlessness scale was .78 (N=384), and for the Social Isolation subscale of nine items reliability was .84 (N=384). The total Alienation scale had a reliability coefficient of .78 (N=384). (Dean, 1961, p.756).

Dean determined that the subscales belong to the same general concept of alienation through correlation. The correlation coefficients between the scales were above the .01 level of significance. The following table presents the correlation coefficients:

	<u>Normless-</u> <u>ness</u>	<u>Social</u> <u>Isolation</u>	<u>Alienation</u> (total)
<u>Powerlessness</u>	.67	.54	.90
<u>Normlessness</u>		.41	.80
<u>Social Isolation</u>			.75

Dean (1961) suggests that these subscales exhibit enough independence to be treated as independent variables (p. 756).

To preclude the possibility that the test was measuring Authoritarianism, Dean correlated the entire scale and each subscale with Adorno's Authoritarianism scale. The resulting coefficients were sufficiently low so that the scales could be said to be measuring something other than authoritarianism (p. 756).

The Public Opinion Questionnaire was chosen for use in this study because it met the need of a standardized scale and norms exist for several sample populations.

It is recognized and employed by scholars in the field of alienation. Although there exists some disagreement about the scale among social scientists, the scale was satisfactory for the purpose of this study. ( See Clark, 1959, p. 849.) The Public Opinion Questionnaire is easily administered and scored.

Data for the Public Opinion Questionnaire was collected from the same population receiving the communication denial experience inventory. The Public Opinion Questionnaire is presented in Appendix B.

### III. Correlation of the Summated Rating Scale and the Public Opinion Questionnaire

The final treatment of the data was a statistical comparison of the data, a product-moment correlation, obtained from the revised communication denial inventory with the data from the Public Opinion Questionnaire to determine the extent to which the relationship exists between discovered factors in communication denial experiences and social alienation. The null hypothesis used to describe the resulting correlation coefficient was: The correlation of the data from the revised summated rating scale and the data from the Public Opinion Questionnaire for the defined sample is zero. The SFAØ1B program performed the correlation.

### Summary

The data for this study was comprised of the responses of one hundred ninety-six students enrolled in Fundamentals of Speech at the University of Kansas, Spring, 1969, to two introspective scales; Dean's twenty-four item alienation instrument and the ninety-four item communication denial experience inventory. Statistical analysis of the data was made using three procedures: (1) item analysis of the summated rating scale, (2) factor analysis of the summated rating scale, and (3) correlation of the two sets of data obtained from the revised summated rating scale and Dean's scale.

All computations were performed on the G.E. 625 computer at the University of Kansas Computation Center. All of the programs used were from the Program Library at the Computation Center.

## CHAPTER III

### RESULTS

#### Item Analysis Results

The first statistical procedure was an item analysis of the summated rating scale.

The t-ratios obtained indicated that ninety-one of the ninety-four items differentiated significantly between the upper and the lower quartile of subjects at the .01 level of confidence. The highest t-score was 15.362 and the lowest was 0.873. Table 1 lists the items and their t-ratios.

#### Factor Analysis Results

The second statistical treatment of the data was factor analysis. All of the ninety-four variables were analyzed.

According to Fruchter (1954), "loadings of .2 or less are usually regarded as insignificant, loadings of .2 to .3 as low, .3 to .5 as moderate, .5 to .7 as high and above .7 as very high." (p. 151) On this basis then, items were retained within a factor if the loading was .5000+.

The principal components analysis extracted twenty factors with eigenvalues greater than 1 from the ninety-four by ninety-four correlation matrix. Factor I accounted

TABLE 1

## CRITICAL RATIOS FOR THE ORIGINAL NINETY-FOUR ITEMS

Item No.	Item	Critical Ratio
66.	He doesn't respond directly to my statements or questions.	15.362
81.	I feel restricted in communication with him.	15.356
80.	His response to me cuts off further communication.	14.947
54.	Talking with him is a pleasing experience.	14.945
46.	He doesn't answer my questions completely.	14.148
65.	I don't trust his reaction to what I tell him.	13.589
43.	I usually feel I can speak freely with him.	13.426
84.	He uses his status to make me accept his ideas.	13.259
21.	He gives me the impression that he just tolerates my opinion.	12.983
57.	He usually uses just the right words when he tries to understand how I am feeling.	12.640
87.	He tends to finalize matters before I can express my thoughts or feelings.	12.532
83.	When I have an important question, I hesitate to approach him.	12.436
59.	He isn't willing to accept my suggestions.	12.372
3.	He seems to hear what I say but he doesn't do anything about it.	12.261
4.	He understands me.	12.172
36.	I just can't go to him when I have a problem to discuss.	12.099
40.	He listens to me only because he has to.	12.007
11.	I usually feel free to talk with him.	11.929
77.	He doesn't accept my opinion.	11.714
63.	I learn a lot about myself from talking with him.	11.691
27.	He ignores some of my feelings.	11.623
56.	He is an excellent listener.	11.570

TABLE I (continued)

Item No.	Item	Critical Ratio
69	It is safer to keep my ideas to myself when with him.	11.563
52.	He seems to follow almost every feeling I have while I am with him.	11.538
72.	I can share experiences freely with him.	11.529
31.	He generally encourages me to express my opinion.	11.526
1.	He sometimes encourages me to express my ideas.	11.341
30.	I speak to him only because I have to.	11.299
28.	He rarely seems to hear what I say.	11.262
68.	I can be candid with him.	11.187
70.	He tries to understand me.	11.007
12.	When I speak to him, he usually replies with something unrelated to my message.	10.940
16.	He discredits the worth of my ideas when he disagrees with me.	10.825
17.	He does not know how I feel.	10.722
88.	He inhibits the expression of my ideas.	10.681
79.	Sometimes he tries to change the subject.	10.651
93.	He belittles my ideas.	10.648
74.	Usually he avoids my questions.	10.490
38.	He usually doesn't take my suggestions seriously.	10.373
9.	He understands exactly how I see things.	10.366
94.	He understands the value of my message.	10.259
64.	He doesn't want to know what I mean when I say something.	10.244
75.	He is generally receptive to my ideas.	10.210
29.	I frankly don't care about understanding his feelings.	9.877
39.	I can usually fit right in with what he is saying.	9.710
91.	He usually avoids communication with me.	9.605
37.	Even when I cannot quite say what I mean, he knows how I feel.	9.543
33.	He frequently ignores me when I speak to him.	9.421
86.	He respects my opinion.	9.407
15.	He frequently discourages my attempts to express my ideas.	9.168

TABLE I (continued)

Item No.	Item	Critical Ratio
71.	He interrupts me when I talk to him about something that really means a lot to me.	8.732
58.	He sometimes seems displeased because I talk with him.	8.638
78.	He is honest with me.	8.595
89.	He usually avoids me.	8.529
67.	He does not allow me to get close or personal with him.	8.431
26.	Sometimes I think he would like to say, "I won't discuss this."	8.333
49.	I don't think I know him very well as a person.	8.169
8.	He accepts my supportive remarks but will not listen to any criticism.	8.167
44.	I ignore some of his feelings.	8.155
62.	He takes quick action concerning my requests.	8.112
73.	I can share experiences freely with him.	7.988
48.	Sometimes I must rephrase an idea before he hears me.	7.892
60.	With only the slightest hint he accurately senses my deepest feelings.	7.756
24.	He frequently seems pleased with our conversations.	7.376
51.	He makes himself available.	7.332
13.	He usually misunderstands what I am trying to say.	7.133
76.	He is willing to discuss points of disagreement.	7.084
10.	I am usually more interested in what I have to say than in what he is saying.	6.936
41.	He changes the subject when I discuss policy matters with him.	6.877
92.	He communicates with me more than he lets me communicate with him.	6.740
47.	He puts my feelings into words for me.	6.706
53.	He won't let me talk with him as frequently as I would like.	6.206
45.	I don't discuss really important personal matters with him.	6.104
5.	I usually cannot understand what he tries to tell me.	5.980

TABLE I (continued)

Item No.	Item	Critical Ratio
6.	He frequently asks for my opinion when decisions are to be made.	5.786
42.	He usually helps me to know how I am feeling.	5.752
90.	He underestimates the value of my message.	5.735
82.	He should request my opinion more than he does.	5.608
61.	He usually seeks my advice.	5.322
14.	I sometimes pretend to understand his feelings when I really do not.	5.014
85.	Sometimes he tells me to stop talking to him.	4.963
22.	He can read me like a book.	3.869
23.	I often lead him into talking about some of his deepest feelings.	3.472
32.	He knows more about me than I do about myself.	2.845
34.	There are times he doesn't have to speak; I know how he feels.	2.700
7.	People in his position should listen carefully to people like me.	1.129
18.	I usually know exactly what he means even before he is done saying it.	0.873
35.	I would like him to include me in discussing policy matters.	-1.601
19.	It would be frustrating if he would ignore me.	-5.115
20.	It is important for me to express my ideas to him.	-5.320
50.	Communication with him is important for me to attain my goals.	-5.454
2.	It doesn't matter to me if I communicate with him.	-8.104
25.	His opinion is important to me.	-9.286
55.	He is a person I really don't care about knowing.	-11.559

for 37.34% of the original variance and 52.16% of the explained variance. Because Factor I accounted for so great a percentage of the variance, it was evident that items from the summated rating scale were primarily measuring a single concept.

The content of Factor I deals directly with communication denial; for example, "I usually feel free to talk with him" and "He frequently discourages my attempts to express my ideas".

Seventy items with factor loadings of .5000+ form this factor. Fifteen of these items load only on Factor I and forty-three of these items load less than .3000 on any other factor. Further, of these fifty-eight significant items, forty-nine items have loadings above .6000, and twenty-two have loadings above .7000, with two items loading above .8000. The factor loadings and communalities for Factor, Communication Denial, are presented in Table 2.

#### Reliability Results

Internal consistency was a goal in the construction of this test because it provided a measure of the reliability of the instrument. Further, in order to sum the scores for each item to obtain a meaningful total score of communication denial, internal consistency had to be assured.

TABLE 2

FACTOR LOADINGS AND COMMUNALITIES  
FOR VARIABLES WITH HIGH LOADINGS

Item No.	Item	Factor Loadings			Communal- ities
		I	II	III	
		FACTOR I			
80.	His response to me cuts off further communication.	.8137			.66210
54.	Talking with him is a pleasing experience.	.8060			.64964
43.	I usually feel I can speak freely with him.	.7795			.60762
70.	He tries to understand me.	.7757			.60171
28.	He rarely seems to hear what I say.	.7668			.58798
77.	He doesn't accept my opinion.	.7632			.58247
74.	Usually he avoids my questions.	.7620	.2959		.58064
66.	He doesn't respond directly to my statements or questions.	.7602		.2456	.57790
81.	I feel restricted in communication with him.	.7521			.56565
40.	He listens to me only because he has to.	.7503			.56295
91.	He usually avoids communication with me.	.7465	.2628		.55726
38.	He usually doesn't take my suggestions seriously.	.7398			.54730
65.	I don't trust his reaction to what I tell him.	.7352			.54052

TABLE 2 (continued)

Item No.	Item	Factor Loadings			Communal- ities
		I	II	III	
11.	I usually feel free to talk with him.	.7332		-.2035	.53758
64.	He doesn't want to know what I mean when I say something.	.7146			.51065
88.	He inhibits the expression of my ideas.	.7108		.2058	.50538
87.	He tends to finalize matters before I can express my thoughts or feelings.	.7106	.2889		.50495
72.	I can share experiences freely with him.	.7062	-.2688		.49871
4.	He understands me.	.7051			.49716
56.	He is an excellent listener.	.7014			.49196
36.	I just can't go to him when I have a problem to discuss.	.7003			.49042
86.	He respects my opinion.	.6996			.48944
12.	When I speak to him he usually replies with something unrelated to my message.	.6986			.48804
57.	He usually uses just the right words when he tries to understand how I am feeling.	.6968			.48553
55.	He is a person I really don't care about knowing.	.6960			.48441
94.	He understands the value of my message.	.6939			.48150

TABLE 2 (continued)

Item No.	Item	Factor Loadings			Communal- ities
		I	II	III	
69.	It is safer to keep my ideas to myself when with him.	.6923			.47928
21.	He gives me the impression that he just tolerates my opinion.	.6906			.47692
46.	He doesn't answer my questions completely.	.6877		.2515	.47293
83.	When I have an important question, I hesitate to approach him.	.6828			.46621
30.	I speak to him only because I have to.	.6819			.46499
84.	He uses his status to make me accept his ideas.	.6772	.2051		.45860
3.	He seems to hear what I say but he doesn't do anything about it.	.6753			.45603
89.	He usually avoids me.	.6726			.45239
68.	I can be candid with him.	.6653			.44262
17.	He does not know how I feel.	.6645			.44156
31.	He generally encourages me to express my opinion.	.6641			.44103
16.	He discredits the worth of my ideas when he disagrees with me.	.6606			.43639
33.	He frequently ignores me when I speak to him.	.6551	.2627		.42916
29.	I frankly don't care about understanding his feelings.	.6542		-.2614	.42798
25.	His opinion is important to me.	-.6447		.2898	.41564

TABLE 2 (continued)

Item No.	Item	Factor Loadings			Communalities
		I	II	III	
79.	Sometimes he tries to change the subject.	.6422			.41242
58.	He sometimes seems displeased because I talk with him.	.6406			.41037
1.	He sometimes encourages me to express my ideas.	.6377			.40666
15.	He frequently discourages my attempts to express my ideas.	.6368			.40551
78.	He is honest with me.	.6266	.2222		.39263
9.	He understands exactly how I see things.	.6257			.39150
51.	He makes himself available.	.6195			.38378
39.	I can usually fit right in with what he is saying.	.6152			.37847
76.	He is willing to discuss points of disagreement.	.6041		-.2022	.36494
71.	He interrupts me when I talk about something that really means a lot to me.	.6041	.2654		.36494
67.	He does not allow me to get close or personal with him.	.5887			.34657
24.	He frequently seems pleased with our conversations.	.5617			.31551
8.	He accepts my supportive remarks but will not listen to any criticism.	.5415	.2305		.29322

TABLE 2 (continued)

Item No.	Item	Factor Loadings			Communal- ities
		I	II	III	
41.	He changes the subject when I discuss policy matters with him.	.5334			.28451
5.	I usually cannot understand what he tries to tell me.	.5294			.28026
10.	I am usually more interested in what I have to say than in what he is saying.	.5108		-.2270	.26092
62.	He takes quick action concerning my requests.	.5719	-.2640		.32707

The fifty-eight item revised summated rating scale was analyzed for internal consistency by obtaining a Spearman-Brown reliability coefficient and a Kuder-Richardson reliability coefficient. The resulting coefficients of reliability were:

Spearman-Brown	0.9811
Kuder-Richardson (20)	0.9738

#### Product-Moment Correlation Results

In order to determine the relationship between experienced communication denial and feelings of social alienation, the communication denial summated rating scale was revised and the data from the revised scale was correlated with data from the alienation instrument, the Public Opinion Questionnaire.

Ninety-one of the ninety-four items on the summated rating scale had t-scores significant at the .01 level of confidence. Seventy of these had factor loadings of .5000+ on Factor I.

Only items which loaded .5000+ on Factor I and which loaded .3000 or less on any other factor were included in the revised scale. Table 3 contains the factor loadings and the t-scores for the fifty-eight items on the revised scale.

Alienation was measured by the Public Opinion Questionnaire containing twenty-four items.

The mean for the Public Opinion Questionnaire was 46.9005 and the standard deviation was 11.2243 (N=191). The mean for the summated rating scale was 93.1832, with a standard deviation of 37.6274 (N=191). The resulting coefficient of correlation was +.2956. A coefficient of correlation of +.2956 is significant beyond the .01 level of confidence (Owen, 1962, p. 19).

The null hypothesis was, therefore, rejected. The correlation results indicated that there is a relationship between perceived denial of communication and perception of social alienation, as they are operationally defined and measured in this study. An individual who tends to feel that he has experienced, or is experiencing, communication denial also tends to perceive himself as alienated.

TABLE 3

CRITICAL RATIOS AND FACTOR LOADINGS FOR THE  
FIFTY-EIGHT ITEM REVISED SUMMATED RATING SCALE

Item No.	Item	Positive or Negative	I	Factor Loadings		Critical Ratio
				II	III	
66.	He doesn't respond directly to my statements or questions.	+	.7602		.2456	15.362
81.	I feel restricted in communication with him.	+	.7521			15.356
80.	His response to me cuts off further communication.	+	.8137			14.947
54.	Talking with him is a pleasing experience.	-	.8060			14.945
46.	He doesn't answer my questions completely.	+	.6877		.2515	14.148
65.	I don't trust his reaction to what I tell him.	+	.7352			13.589
43.	I usually feel I can speak freely with him.	-	.7795			13.426
84.	He uses his status to make me accept his ideas.	+	.6772	.2051		13.259
21.	He gives me the impression that he just tolerates my opinion.	+	.6906			12.983
57.	He usually uses just the right words when he tries to understand how I am feeling.	-	.6968			12.640
87.	He tends to finalize matters before I can express my thoughts or feelings.	+	.7106	.2889		12.532

TABLE 3 (continued)

Item No.	Item	Positive or Negative	Factor Loadings I	II	III	Critical Ratio
83.	When I have an important question, I hesitate to approach him.	+	.6828			12.436
3.	He seems to hear what I say but he doesn't do anything about it.	+	.6753			12.261
4.	He understands me.	-	.7051			12.172
36.	I just can't go to him when I have a problem to discuss.	+	.7003			12.099
40.	He listens to me only because he has to.	+	.7503			12.007
11.	I usually feel free to talk with him.	-	.7332		-.2035	11.929
77.	He doesn't accept my opinion.	+	.7632			11.714
56.	He is an excellent listener.	-	.7014			11.570
69.	It is safer to keep my ideas to myself when with him.	+	.6923			11.563
72.	I can share experiences freely with him.	-	.7062	-.2688		11.529
31.	He generally encourages me to express my opinion.	-	.6641			11.526
1.	He sometimes encourages me to express my ideas.	-	.6377			11.341
30.	I speak to him only because I have to.	+	.6819			11.299
28.	He rarely seems to hear what I say.	+	.7668			11.262
68.	I can be candid with him.	-	.6653			11.187
70.	He tries to understand me.	-	.7757			11.007
12.	When I speak to him, he usually replies with something unrelated to my message.	+	.6986			10.940

TABLE 3 (continued)

Item No.	Item	Positive or Negative	Factor Loadings			Critical Ratio
			I	II	III	
16.	He discredits the worth of my ideas when he disagrees with me.	+	.6606			10.825
17.	He does not know how I feel.	+	.6645			10.722
88.	He inhibits the expression of my ideas.	+	.7108		.2058	10.681
79.	Sometimes he tries to change the subject.	+	.6422			10.651
74.	Usually he avoids my questions.	+	.7620	.2959		10.490
38.	He usually doesn't take my suggestions seriously.	+	.7398			10.373
9.	He understands exactly how I see things.	-	.6257			10.366
94.	He understands the value of my message.	-	.6939			10.259
64.	He doesn't want to know what I mean when I say something.	+	.7146			10.244
29.	I frankly don't care about understanding his feelings.	+	.6542		-.2614	9.877
39.	I can usually fit right in with what he is saying.	-	.6152			9.710
91.	He usually avoids communication with me.	+	.7465	.2628		9.605
33.	He frequently ignores me when I speak to him.	+	.6551	.2627		9.421
86.	He respects my opinion.	-	.6996			9.407
15.	He frequently discourages my attempts to express my ideas.	+	.6368			9.168

TABLE 3 (continued)

Item No.	Item	Positive or Negative	Factor Loadings			Critical Ratio
			I	II	III	
71.	He interrupts me when I talk about something that really means a lot to me.	+	.6041	.2654		8.732
58.	He sometimes seems displeased because I talk with him.	+	.6406			8.638
78.	He is honest with me.	-	.6266	.2222		8.595
89.	He usually avoids me.	+	.6726			8.529
67.	He does not allow me to get close or personal with him.	+	.5887			8.431
8.	He accepts my supportive remarks but will not listen to any criticism.	+	.5415	.2305		8.167
62.	He takes quick action concerning my requests.	-	.5719	-.2640		8.112
24.	He frequently seems pleased with our conversations.	-	.5617			7.376
51.	He makes himself available.	-	.6195			7.332
76.	He is willing to discuss points of disagreement.	-	.6041		-.2002	7.084
10.	I am usually more interested in what I have to say than in what he is saying.	+	.5108		-.2270	6.936
41.	He changes the subject when I discuss policy matters with him.	+	.5334			6.877
5.	I usually cannot understand what he tries to tell me.	+	.5294			5.980

TABLE 3 (continued)

Item No.	Item	Positive or Negative	Factor Loadings			Critical Ratio
			I	II	III	
25.	His opinion is important to me.	+	-.6447		.2898	-9.286
55.	He is a person I really don't care about knowing.	-	.6960			-11.559

## CHAPTER IV

### DISCUSSION AND CONCLUSIONS

This study started with theoretical constructs in order to conceptualize a specific communication behavior: communication denial. The denial of communication is a type of communication, bearing the distinct message that continued communication at that time, on that topic is futile. The communication initiator is rejected and his existence as a functional communicator is denied. Communication denial is distinguished from disagreement which may be rejection of an idea or a premise without rejection of the sender.

The three major types of communication denial experiences gleaned from the literature include: (1) suppression, where a sender finds his act of communication met with negative reactions by the receiver, (2) tangential response, where the receiver refuses to acknowledge the intent of the sender and (3) overt denial, where the receiver directly demands cessation of communication by that communicator.

The factor analysis results did not support these subtle distinctions, inasmuch as a single factor emerged. The distinctions may be useful in describing a specific

communication experience. However, there is no statistical evidence that the three types are in any way exclusive.

### The Revised Summated Rating Scale

A Likert-type summated rating scale was developed so that communication denial could be operationalized and studied in the context of interpersonal relationships.

The fifty-eight item introspective instrument was constructed to measure the degree to which an individual perceives he has experienced communication denial. All of the fifty-eight items in the final revision of this instrument were shown to discriminate significantly at the .01 level of confidence. The fifty-eight items had high loadings (.5000+) on a single factor designated Communication Denial. The scale is fairly easy to administer and score, and has face validity. The scale had reliability coefficients of .9811 (Spearman-Brown) and .9738 (Kuder-Richardson [20]).

A limitation of a Likert-type instrument is that as an introspective measure it can only approximate an accurate report of an experience or attitude. Future studies employing the scale may include techniques of direct observation or personal interview to establish further the validity of the instrument as well as obtaining situational information about a communication relationship.

For gathering data about communication denial, observation techniques alone would rely heavily on criteria for observation. If communication behaviors are not readily discernable, inferences must be made by the observer which may or may not be reliable accounting. In a personal interview an individual may be more reticent about disclosing personal attitudes than he would be on a fairly anonymous, impersonal scale. Thus, the introspective scale here presented can be of value.

#### Uses of the Scale

Although used in this study to explore a particular relationship, the scale may be employed in a variety of interpersonal situations. Studies of familial communication can use the instrument to gather data about a husband-wife, or parent-child communication relationship. Labor-management, parent-teacher, student-teacher, student-administration, doctor-patient, and other relationships may be areas where information about communication denial would be desirable in facilitating successful relationships.

#### Alienation and Communication Denial

One of the goals of the present study was to investigate social alienation from a communication perspective. A correlation coefficient significant at the .01

level of confidence was obtained from the data on the revised summated rating scale and the Public Opinion Questionnaire, indicating a strong relationship between perceived communication denial and social alienation.

Because introspective measuring devices were used, the data must be interpreted accordingly and tempered with caution. No attempt has been made to determine whether communication denial experiences as measured had actually occurred. The implication does exist that there is an experiential basis for the perception that one has been continually denied communication. This is not to say that, in reality, the receiver constantly, or over a period of time did indeed deny communication. The measuring device cannot verify such a fact.

The instrument can only determine to what degree an individual felt as though his communication had been denied by the other. The person will respond to a situation in a way consistent with his perceptions.

The important socio-communicative implication is that an individual who feels he has experienced a great amount of communication denial by a significant "other", may no longer perceive the existing channels of communication as effective. Further, he would have difficulty identifying with the system which he sees as insisting that he employ those communication channels which he has

found unreliable, disappointing and unsatisfactory. These two factors, the failure to achieve successful, satisfying communication, and the disillusion with the dominant group, are essential elements of alienation.

The literature on alienation reflects the supposition that disturbed patterns of communication promote interpersonal conditions conducive to alienation. McClosky and Schaar (1965) have suggested that "anomy in part reflects patterns of communication and interaction that reduce opportunities to see and understand how the society works and what its goals and values are." (p. 19). More intense research focusing directly on alienation and denial of communication would help to clarify the causal nature of this relationship.

Alienation has received academic attention in areas of psychology, religion, political science and sociology. This study has shown that there exists a valid, if not intrinsic, place for the study of alienation in the science of communication.

#### Areas of Further Investigation

This thesis has dealt only with perceived experiences of communication denial and its relation to feelings of social alienation. Specific individual responses to communication denial were not explored. An important question to be dealt with is "How does an individual

react to communication denial?", or "What are his feelings about the denial?" To discover how people react to situations of denied communication would be important to behavioral scientists interested in disturbed communication and in the more precise patterns and dimensions involved.

Implicit in the discussion of communication denial has been the factor of the value of the communication experience to a person. This thesis had assumed the position that if a person does not value his communication relationship with the "other", then he probably would not consider himself denied communication, even if he had experienced communication denial as judged by an outside observer.

As will be recalled from Table 1, nine of the eleven items which determined the value of the communication experience on the original, unrevised scale had t-statistics significant beyond the .05 level of confidence. However, careful review of this statistical evidence does not, in general, support the supposition that a high degree of communication denial reflects a significant value for the relationship, as expressed by the subject.

On the contrary, four of the nine significant items dealing with the value of the communication relationship do not reflect a personal regard for, or

commitment to, the communication experience. An example of such an item is, "I speak to him only because I have to."

The five other significant items all deal with personal value and concern for the communication relationship, and they are all negatively significant. An example is, "It is important for me to express my ideas to him."

In other words, people who tended to show little communication denial tended to value the communication relationship with the "other". Those who demonstrated a great deal of communication denial tended not to value the communication relationship. The latter group appeared to be perceiving an unavoidable or mandatory relationship. In contrast, those not experiencing communication denial appeared to be perceiving a desirable, preferred, and significant relationship.

While this evidence cannot be discounted, this researcher suggests that there are other, extenuating factors which may be contributing to these results. One possibility is that as a person describes a relationship and discovers that it tends to appear unsatisfactory, there may be a tendency to minimize the importance of the relationship. Thus, it may appear that the loss, in terms of self respect, for example, is also minimized by de-

valuating the relationship.

The results indicate, then, that some significance is attached to the communication relationship by those expressing communication denial. The significance may not be personal value, but, instead, the perceived necessity of the relationship under the given circumstances. Further, as mentioned above, the relationship may have originally been highly meaningful to an individual who, after perceiving communication denial experiences, devalued that relationship.

Further research in personal value and its relationship to communication denial would help to clarify the questions raised above.

Another area of investigation is the relationship of experiences of denied communication and self concept. Satir (1967) and Laing (1961) have stated that denial of communication is in effect a disconfirmation of a person. Though a single act of disconfirmation may not seriously impair an individual's self concept, such disconfirmation over a period of time would have some negative effect on a person's perception of himself. A variety of aspects of communication have been explored in relation to self concept, lending a firm conceptual basis from which to initiate an investigation of communication denial and self concept. A study directly relating self concept and communi-

cation denial would help to broaden the understanding of the contribution of negative feedback to self concept development.

Another possible future consideration would be to correlate communication denial with each of Dean's three major factors; normlessness, powerlessness and social isolation. This would illustrate the effects of varying degrees of denied communication on each of the sub-scales to gain a more precise understanding of the relationship. One might expect to find that with progressively greater degrees of experiences of denial, there would be a progression from social isolation to normlessness to powerlessness. More specifically, a moderate number of experiences of communication denial might lead to feelings of social isolation and then to insufficient exposure to, or acceptance of social norms. The more severe the denial of communication, the more one would expect to see higher scores on the powerlessness scale, a marked feeling of confusion. This area would provide even richer information if widely different populations were studied.

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## APPENDICES

## APPENDIX A

### SCALE FOR MEASURING COMMUNICATION DENIAL: ITEMS DEVELOPED FOR THE PILOT STUDY

- I. Frequency of Denial Experiences and Encouraging Experiences.
1. He sometimes encourages me to express my ideas.
  2. He frequently asks for my opinion when decisions are to be made.
  3. I usually feel free to talk with him.
  4. He frequently discourages my attempts to express my ideas.
  5. He frequently seems pleased with our conversations.
  6. He rarely seems to hear what I say.
  7. He frequently ignores me when I speak to him.
  8. He usually doesn't take my suggestions seriously.
  9. I usually feel I can speak freely with him.
  10. Sometimes I must rephrase an idea before he hears me.
  11. He won't let me talk with him as frequently as I would like.
  12. He sometimes seems displeased because I talk with him.
  13. He usually seeks my advice.
  14. He usually avoids communication with me.
- II. Value of the Communication Experiences to the Speaker.
1. It doesn't matter to me if I communicate with him.
  2. People in his position should listen carefully to people like me.
  3. It would be frustrating if he would ignore me.
  4. It is important for me to express my ideas to him.
  5. His opinion is important to me.
  6. I speak to him only because I have to.
  7. I would like him to include me in discussing policy matters.
  8. He listens to me only because he has to.
  9. I don't discuss really important personal matters with him.
  10. Communication with him is important for me to attain my goals.
  11. He uses his status to make me accept his ideas.

III. Types of Denial Experienced (Suppression, Tangential Reply, Overt Denial).

1. He seems to hear what I say but he doesn't do anything about it.
2. He accepts my supportive remarks but will not listen to any criticism.
3. When I speak to him, he usually replies with something unrelated to my message.
4. He discredits the worth of my ideas when he disagrees with me.
5. He gives me the impression that he just tolerates my opinion.
6. Sometimes I think he would like to say, "I won't discuss this."
7. He generally encourages me to express my opinion.
8. I just can't go to him when I have a problem to discuss.
9. He changes the subject when I discuss policy matters with him.
10. He doesn't answer my questions completely.
11. He makes himself available.
12. He is an excellent listener.
13. He isn't willing to accept my suggestions.
14. He takes quick action concerning my requests.
15. He doesn't want to know what I mean when I say something.
16. He doesn't respond directly to my statements or questions.
17. I can be candid with him.
18. I can share experiences freely with him.
19. Usually he avoids my questions.
20. He is generally receptive to my ideas.
21. He is willing to discuss points of disagreement.
22. He doesn't accept my opinion.
23. He is honest with me.
24. Sometimes he tries to change the subject.
25. His response to me cuts off further communication.
26. I feel restricted in communication with him.
27. He should request my opinion more than he does.
28. When I have an important question, I hesitate to approach him.
29. Sometimes he tells me to stop talking to him.
30. He respects my opinion.
31. He tends to finalize matters before I can express my thoughts or feelings.

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32. He inhibits the expression of my ideas.
33. He underestimates the value of my message.
34. He communicates with me more than he lets me communicate with him.
35. He understands the value of my message.

IV. Perception of Empathy in the Receiver.

1. He understands me.
2. He understands exactly how I see things.
3. He usually misunderstands what I am trying to say.
4. He does not know how I feel.
5. He can read me like a book.
6. He ignores some of my feelings.
7. He knows more about me than I do about myself.
8. Even when I cannot quite say what I mean, he knows how I feel.
9. He usually helps me to know how I am feeling.
10. He puts my feelings into words for me.
11. He seems to follow almost every feeling I have while I am with him.
12. He usually uses just the right words when he tries to understand how I am feeling.
13. With only the slightest hint he accurately senses my deepest feelings.
14. I learn a lot about myself from talking with him.
15. I don't trust his reaction to what I tell him.
16. He does not allow me to get close or personal with him.
17. It is safer to keep my ideas to myself when with him.
18. He tries to understand me.
19. He interrupts me when I talk about something that really means a lot to me.
20. He respects me.
21. He usually avoids me.
22. He belittles my ideas.

V. The Perception of Empathic Capacity in the Person Experiencing Communication Denial.

1. I usually cannot understand what he tries to tell me.
2. I am usually more interested in what I have to say than in what he is saying.
3. I sometimes pretend to understand his feelings when I really do not.
4. I usually know exactly what he means even before he is done saying it.

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5. I often lead him into talking about some of his deepest feelings.
6. I frankly don't care about understanding his feelings.
7. There are times when he doesn't have to speak: I know how he feels.
8. I can usually fit right in with what he is saying.
9. I ignore some of his feelings.
10. I don't think I know him very well as a person.
11. He is a person I really don't care about knowing.

APPENDIX B

PUBLIC OPINION QUESTIONNAIRE

Below are some statements regarding public issues, with which some people agree and others disagree. Please give us your own opinion about these items, i.e., whether you agree or disagree with the items as they stand.

Please check in the appropriate blank, as follows:

- A (Strongly Agree)
- a (Agree)
- U (Uncertain)
- d (Disagree)
- D (Strongly Disagree)

1. Sometimes I feel all alone in the world.       A       a       U       d       D
2. I worry about the future facing today's children.       A       a       U       d       D
3. I don't get invited out by friends as often as I'd really like.       A       a       U       d       D
4. The end often justifies the means.       A       a       U       d       D
5. Most people today seldom feel lonely.       A       a       U       d       D
6. Sometimes I have the feeling that other people are using me.       A       a       U       d       D
7. People's ideas change so much that I wonder if we'll ever have anything to depend on.       A       a       U       d       D
8. Real friends are as easy as ever to find.       A       a       U       d       D
9. It is frightening to be responsible for the development of a little child.       A       a       U       d       D
10. Everything is relative, and there just aren't any definite rules to live by.       A       a       U       d       D
11. One can always find friends if he shows himself friendly.       A       a       U       d       D
12. I often wonder what the meaning of life really is.       A       a       U       d       D

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13. There is little or nothing I can do towards preventing a major "shooting" war.
14. The world in which we live is basically a friendly place.     A     a     U     d     D
15. There are so many decisions that have to be made today that sometimes I could just "blow up".     A     a     U     d     D
16. The only thing one can be sure of today is that he can be sure of nothing.     A     a     U     d     D
17. There are few dependable ties between people any more.     A     a     U     d     D
18. There is little chance for promotion on the job unless a man gets a break.     A     a     U     d     D
19. With so many religions abroad, one doesn't really know which to believe.\*     A     a     U     d     D
20. We're so regimented today that there's not much room for choice even in personal matters.     A     a     U     d     D
21. We are just so many cogs in the machinery of life.     A     a     U     d     D
22. People are just naturally friendly and helpful.     A     a     U     d     D
23. The future looks very dismal.     A     a     U     d     D
24. I don't get to visit friends as often as I'd really like.     A     a     U     d     D

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\* In the form presented to the subjects, the word "around" was substituted for "abroad" in this statement.

## APPENDIX D

PER CENT OF ORIGINAL VARIANCE ACCOUNTED FOR BY EACH FACTOR  
IN PRINCIPAL COMPONENTS ANALYSIS

<u>Factor</u>	<u>Variance</u>	<u>Factor</u>	<u>Variance</u>
1	37.34	11	1.54
2	4.80	12	1.46
3	3.23	13	1.36
4	2.38	14	1.33
5	2.08	15	1.24
6	1.98	16	1.23
7	1.94	17	1.17
8	1.83	18	1.12
9	1.74	19	1.10
10	1.64	20	1.08

# APPENDIX C

## CORRELATION MATRIX

### 94 x 94 Correlation Matrix

COL. = VARIABLE

ROW = VARIABLE

CORRELATIONS

	1	2	3	4	5	6	7	8	9	10
1	1.0000									
2	-0.4385	1.0000								
3	0.5307	-0.4212	1.0000							
4	0.4578	-0.3905	0.5311	1.0000						
5	0.3226	-0.3600	0.3403	0.3556	1.0000					
6	0.4494	-0.2755	0.3412	0.2854	0.1571	1.0000				
7	0.0385	-0.0628	0.1069	-0.0429	-0.0562	-0.0892	1.0000			
8	0.3877	-0.4551	0.3855	0.3093	0.3588	0.2474	0.0604	1.0000		
9	0.3788	-0.3327	0.4656	0.5754	0.3842	0.2256	0.0748	0.2235	1.0000	
10	0.3945	-0.4536	0.3490	0.3409	0.2911	0.2168	-0.0081	0.3609	0.3099	1.0000
11	0.5236	-0.5030	0.4888	0.5160	0.4728	0.3355	-0.0264	0.3992	0.5627	0.4799
12	0.4373	-0.4291	0.5004	0.5025	0.5086	0.2912	0.0494	0.4673	0.4254	0.4501
13	0.3387	-0.3598	0.4024	0.4133	0.4005	0.1636	0.0873	0.3557	0.3782	0.3469
14	0.2327	-0.2815	0.2598	0.1662	0.3327	0.1562	-0.0267	0.3363	0.2481	0.3793
15	0.4719	-0.4419	0.3636	0.4246	0.2666	0.2544	0.0941	0.3096	0.3305	0.2606
16	0.4245	-0.3971	0.4348	0.4005	0.4488	0.2891	0.0688	0.5411	0.3728	0.3013
17	0.4101	-0.4354	0.5052	0.5316	0.3673	0.3335	0.0465	0.3213	0.5736	0.3125
18	0.0211	0.0814	0.0297	-0.0747	0.1815	-0.0458	-0.0458	0.0355	0.1234	0.0306
19	-0.2661	0.4405	-0.2568	-0.3294	-0.1740	-0.3035	0.1109	-0.2756	-0.3178	-0.2920
20	-0.3129	0.4749	-0.2879	-0.3591	-0.1752	-0.3621	0.1857	-0.2104	-0.3502	-0.2908
21	0.4736	-0.3849	0.5242	0.4916	0.3417	0.3052	0.0670	0.5160	0.3753	0.4126
22	0.1734	-0.0343	0.2269	0.3316	0.1115	0.0587	0.0105	0.1681	0.3474	0.0045
23	0.1840	-0.0028	0.1478	0.2109	-0.0354	0.1000	-0.0186	-0.0419	0.1858	-0.0835
24	0.4237	-0.3243	0.3977	0.4380	0.2037	0.2725	-0.0582	0.2241	0.3818	0.2576
25	-0.4308	0.5789	-0.4085	-0.4822	-0.2624	-0.2827	-0.0422	-0.3018	-0.4579	-0.4553
26	0.2342	-0.1898	0.3958	0.3834	0.2525	0.2070	0.0881	0.3156	0.3367	0.1597
27	0.3008	-0.2993	0.4702	0.4455	0.3557	0.2479	0.0765	0.3533	0.3984	0.2531
28	0.4785	-0.4507	0.4637	0.5282	0.4698	0.3374	0.0733	0.3550	0.4694	0.3683
29	0.5343	-0.6480	0.4458	0.4583	0.3308	0.2880	0.0927	0.3211	0.3766	0.4435
30	0.4728	-0.6105	0.4046	0.4753	0.3982	0.2506	0.1254	0.3508	0.4397	0.3317
31	0.6097	-0.4056	0.3848	0.4971	0.2949	0.4075	-0.0068	0.3487	0.3813	0.3094
32	0.1016	-0.0752	0.1804	0.2793	-0.0457	0.0825	0.1339	-0.0496	0.2382	0.0356
33	0.4030	-0.4710	0.4150	0.3973	0.3589	0.2408	0.0470	0.3224	0.3288	0.3771
34	0.1427	-0.1213	0.0220	0.1961	0.2080	0.1343	-0.0521	0.1469	0.2104	0.1394
35	-0.1148	0.2117	-0.0868	-0.0855	-0.1919	-0.1422	0.1570	-0.0616	-0.1524	-0.0824
36	0.3989	-0.4491	0.3969	0.4951	0.3406	0.2789	-0.0148	0.3217	0.5175	0.3581
37	0.4219	-0.4521	0.4316	0.5188	0.3045	0.2329	-0.0744	0.3239	0.3928	0.2798
38	0.3783	-0.5449	0.4361	0.4682	0.4141	0.3484	0.0484	0.4240	0.3377	0.4702
39	0.3721	-0.3151	0.4024	0.4390	0.3783	0.2658	-0.0461	0.2971	0.3999	0.2481
40	0.4403	-0.5188	0.4869	0.4617	0.4011	0.3419	0.0401	0.3839	0.4741	0.3908
41	0.2391	-0.3476	0.2812	0.3590	0.3371	0.2397	-0.0378	0.3376	0.1584	0.3550
42	0.2523	-0.1382	0.2975	0.3573	0.1703	0.1461	-0.0660	0.1139	0.2394	0.1649
43	0.5031	-0.5125	0.5194	0.5685	0.4274	0.3285	0.0557	0.3540	0.5265	0.3004
44	0.3946	-0.4054	0.3546	0.3513	0.2671	0.2211	0.0659	0.3572	0.3115	0.3811

## CORRELATIONS

COL. = VARIABLE

ROW = VARIABLE

	1	2	3	4	5	6	7	8	9	10
45	0.1606	-0.1866	0.2727	0.3874	0.0984	0.1833	-0.0724	0.1311	0.2634	0.0957
46	0.5144	-0.3116	0.4675	0.4815	0.4190	0.2782	0.0856	0.3551	0.3732	0.2960
47	0.2484	-0.2510	0.3744	0.3219	0.1417	0.1438	0.0099	0.1405	0.3765	0.1330
48	0.1050	-0.1935	0.2088	0.3623	0.2543	0.2639	-0.0290	0.2499	0.2452	0.1440
49	0.3532	-0.3264	0.3253	0.3682	0.2194	0.2363	-0.0916	0.2079	0.3443	0.2166
50	-0.3721	0.4757	-0.3111	-0.3483	-0.2452	-0.3906	0.1866	-0.3152	-0.2522	-0.3283
51	0.3672	-0.3919	0.3716	0.3665	0.3261	0.2553	-0.0039	0.2186	0.3463	0.2747
52	0.4070	-0.4090	0.4508	0.5618	0.3271	0.3631	0.0230	0.2324	0.4834	0.2496
53	0.2063	-0.1851	0.1590	0.2254	0.1478	0.1830	0.0532	0.1998	0.1243	0.2827
54	0.5303	-0.4985	0.5376	0.6020	0.4049	0.3042	0.1312	0.3829	0.5551	0.3556
55	-0.5031	0.5238	-0.5202	-0.5280	-0.3653	-0.2332	-0.0154	-0.2480	-0.4178	-0.4574
56	0.5376	-0.3904	0.4716	0.5037	0.3724	0.3578	0.1079	0.3447	0.4264	0.3336
57	0.4283	-0.4215	0.5796	0.5517	0.3372	0.2066	0.1514	0.3714	0.4216	0.3966
58	0.3310	-0.3521	0.3273	0.3869	0.3684	0.2347	-0.0495	0.2848	0.3469	0.3053
59	0.4111	-0.5225	0.5232	0.4678	0.3990	0.3347	0.0470	0.4794	0.3960	0.3696
60	0.2602	-0.3341	0.3911	0.3770	0.2369	0.1449	0.0723	0.2523	0.4200	0.1352
61	0.2299	-0.2253	0.1657	0.2653	0.1052	0.3303	-0.0741	0.0946	0.1981	0.1057
62	0.3390	-0.3468	0.4235	0.4377	0.2141	0.3289	-0.0694	0.2920	0.3542	0.2258
63	0.4227	-0.4212	0.4410	0.3872	0.2211	0.2220	0.0389	0.1730	0.3957	0.1577
64	0.4902	-0.4863	0.4791	0.5039	0.4008	0.2464	0.0241	0.3138	0.4369	0.3359
65	0.4457	-0.4299	0.4582	0.5369	0.3565	0.2405	0.0552	0.4535	0.3951	0.3082
66	0.4723	-0.4101	0.5065	0.5405	0.5018	0.3290	0.0737	0.3997	0.4290	0.3557
67	0.3424	-0.3093	0.4083	0.4177	0.3100	0.1128	0.0163	0.1895	0.4256	0.2903
68	0.3641	-0.4345	0.4314	0.4926	0.3281	0.2562	0.0819	0.2881	0.3996	0.2594
69	0.3561	-0.4254	0.4717	0.4831	0.3091	0.2272	0.1231	0.3301	0.3598	0.3048
70	0.5318	-0.4974	0.5067	0.5419	0.3640	0.2331	0.0900	0.3508	0.5280	0.3689
71	0.3327	-0.3265	0.3942	0.4068	0.3399	0.3254	0.0424	0.4189	0.3389	0.2469
72	0.3897	-0.4779	0.4413	0.4587	0.3182	0.3485	-0.0701	0.3086	0.4346	0.3448
73	0.4429	-0.4861	0.4082	0.4826	0.2565	0.4027	-0.0848	0.3446	0.4221	0.4804
74	0.4737	-0.4809	0.4593	0.4875	0.4198	0.3022	-0.0130	0.4701	0.3845	0.3858
75	0.4941	-0.4441	0.4555	0.4665	0.2364	0.4788	-0.0493	0.3891	0.4346	0.3452
76	0.4475	-0.4173	0.3763	0.3640	0.3286	0.4096	0.0314	0.3653	0.3619	0.3525
77	0.4239	-0.5484	0.4957	0.4889	0.3957	0.3001	0.0703	0.4601	0.4260	0.4593
78	0.4148	-0.4090	0.4366	0.4052	0.2639	0.2927	0.0575	0.3662	0.3688	0.3409
79	0.4351	-0.3448	0.4472	0.3912	0.4754	0.3188	0.0027	0.4222	0.4514	0.3719
80	0.5202	-0.4872	0.5314	0.5208	0.4217	0.3121	0.1097	0.5237	0.5021	0.3250
81	0.3943	-0.5000	0.4669	0.4793	0.3647	0.3469	-0.0134	0.4425	0.4787	0.4144
82	0.2065	-0.2394	0.2441	0.2445	0.1905	0.1625	0.2500	0.2375	0.1780	0.2863
83	0.4522	-0.4062	0.4280	0.4754	0.3075	0.2658	-0.0152	0.4224	0.3406	0.3235
84	0.3581	-0.3659	0.5028	0.4526	0.4050	0.2209	0.1114	0.4590	0.3802	0.2933
85	0.2031	-0.3308	0.2497	0.2413	0.2060	0.1242	-0.1255	0.2558	0.1351	0.2541
86	0.4155	-0.4613	0.4453	0.3705	0.2604	0.3313	0.0435	0.3430	0.4286	0.3425
87	0.4223	-0.4427	0.5170	0.4944	0.4194	0.2634	0.0580	0.4803	0.4912	0.2663
88	0.3811	-0.4317	0.4846	0.4065	0.3825	0.2473	0.1259	0.3981	0.3975	0.2568
89	0.3419	-0.4355	0.3679	0.4901	0.3115	0.2725	-0.0686	0.2548	0.4073	0.3164

	CORRELATIONS		COL. = VARIABLE					ROW = VARIABLE		
	1	2	3	4	5	6	7	8	9	10
90	0.2428	-0.2081	0.3579	0.3647	0.1665	0.1040	0.0720	0.2043	0.2938	0.1471
91	0.3959	-0.4995	0.3827	0.4869	0.3918	0.2510	0.0130	0.3033	0.4535	0.3332
92	0.2063	-0.2711	0.3881	0.3004	0.2761	0.1697	0.1159	0.2967	0.2122	0.2055
93	0.4058	-0.4003	0.4617	0.4273	0.3600	0.2721	0.0840	0.4450	0.4024	0.3249
94	0.3923	-0.4769	0.5011	0.4899	0.3651	0.3961	-0.0035	0.3304	0.4835	0.3605

CORRELATIONS		COL. = VARIABLE					ROW = VARIABLE				
	11	12	13	14	15	16	17	18	19	20	
11	1.0000										
12	0.5835	1.0000									
13	0.4163	0.4913	1.0000								
14	0.2665	0.3356	0.2228	1.0000							
15	0.4156	0.4066	0.2619	0.2264	1.0000						
16	0.5009	0.5496	0.3900	0.3385	0.4521	1.0000					
17	0.5491	0.4043	0.3611	0.2375	0.3422	0.4461	1.0000				
18	0.0770	-0.0938	-0.0519	-0.0557	-0.0945	-0.0468	0.1215	1.0000			
19	-0.3836	-0.2396	-0.2193	-0.1591	-0.2333	-0.3112	-0.3288	0.0382	1.0000		
20	-0.3880	-0.1534	-0.2146	-0.0764	-0.2109	-0.1800	-0.4081	-0.0645	0.6367	1.0000	
21	0.4798	0.5069	0.3323	0.3051	0.4796	0.4244	0.4130	0.0467	-0.2409	-0.2026	
22	0.1043	0.1113	0.1903	-0.1201	0.0225	0.1419	0.3548	0.1764	-0.0431	-0.1384	
23	0.0926	0.0482	-0.0660	-0.0575	0.1009	-0.0604	0.1818	0.0825	0.0218	-0.1114	
24	0.5240	0.3051	0.2012	0.1370	0.3516	0.2766	0.3835	0.1047	-0.2507	-0.2154	
25	-0.5068	-0.4527	-0.2630	-0.2580	-0.4004	-0.3892	-0.3669	-0.0333	0.3999	0.4060	
26	0.2311	0.3521	0.2450	0.2551	0.3204	0.3127	0.2619	0.0155	-0.1084	-0.0744	
27	0.4138	0.4614	0.3215	0.3306	0.4380	0.4991	0.4912	0.0622	-0.1742	-0.1491	
28	0.5449	0.5239	0.3496	0.2625	0.5215	0.5085	0.4733	-0.0033	-0.3660	-0.3534	
29	0.4783	0.4680	0.3343	0.2770	0.4510	0.3697	0.3254	-0.0447	-0.3763	-0.3765	
30	0.5596	0.4271	0.3854	0.1706	0.4488	0.4102	0.5059	-0.0278	-0.3966	-0.4019	
31	0.4766	0.3711	0.2716	0.1696	0.4916	0.4926	0.4669	-0.0306	-0.3250	-0.3919	
32	0.0059	0.0254	0.0240	-0.0135	-0.0060	-0.0467	0.1624	-0.0112	-0.0117	-0.0413	
33	0.4567	0.4721	0.2820	0.2651	0.4032	0.5130	0.3676	0.0299	-0.2930	-0.2655	
34	0.1606	0.1276	0.1033	0.0106	0.0760	0.0149	0.2565	0.3320	-0.0520	-0.2045	
35	-0.1692	-0.0051	-0.0223	-0.0458	-0.0550	-0.0537	-0.1315	-0.1668	0.1982	0.2722	
36	0.5980	0.4545	0.3179	0.2016	0.4422	0.3423	0.4784	0.0061	-0.3272	-0.4109	
37	0.4259	0.3902	0.2663	0.1994	0.3899	0.2938	0.5314	0.1125	-0.2546	-0.3822	
38	0.5264	0.4582	0.2215	0.2641	0.5107	0.5040	0.5015	0.0382	-0.3351	-0.4413	
39	0.4019	0.4154	0.2881	0.1441	0.3723	0.3539	0.3802	0.1793	-0.2618	-0.3157	
40	0.5919	0.5119	0.3396	0.1922	0.5236	0.4096	0.4777	0.1235	-0.2908	-0.3480	
41	0.2998	0.4960	0.1479	0.2102	0.3690	0.3663	0.2386	-0.0106	-0.0775	-0.0933	
42	0.2109	0.2370	0.2043	-0.0475	0.2335	0.1894	0.3028	0.1269	-0.1476	-0.1573	
43	0.6821	0.5341	0.4003	0.1982	0.4656	0.4334	0.5559	0.0312	-0.3395	-0.4645	
44	0.3550	0.3140	0.2319	0.3314	0.3627	0.3504	0.2892	0.0021	-0.2548	-0.2810	
45	0.2936	0.2013	0.1461	0.0388	0.2867	0.0777	0.3432	-0.0362	-0.1067	-0.1676	
46	0.4135	0.4756	0.3333	0.3042	0.4727	0.5118	0.4185	0.0711	-0.2383	-0.2495	
47	0.2616	0.2453	0.2127	0.1454	0.1946	0.2830	0.2909	0.1164	-0.1652	-0.2214	
48	0.2542	0.3881	0.1693	0.1942	0.2063	0.3081	0.2466	0.0381	-0.0871	-0.0666	
49	0.3083	0.2520	0.1530	0.1596	0.2141	0.1258	0.3675	0.0936	-0.1816	-0.1958	
50	-0.3833	-0.2836	-0.2666	-0.2133	-0.2866	-0.2679	-0.2819	0.0081	0.3632	0.4369	
51	0.4472	0.4025	0.2184	0.1737	0.4074	0.4209	0.3614	-0.0167	-0.1881	-0.2754	
52	0.4481	0.4096	0.2505	0.1591	0.3756	0.3778	0.4933	0.1228	-0.2823	-0.3791	
53	0.1841	0.2952	0.1058	0.1680	0.4295	0.2732	0.1818	0.0143	-0.0355	-0.0562	
54	0.5687	0.5316	0.3992	0.2143	0.4817	0.5073	0.5080	0.0656	-0.3261	-0.3384	
55	-0.5016	-0.4433	-0.4053	-0.2541	-0.4418	-0.3751	-0.4732	0.0302	0.3018	0.3384	

## CORRELATIONS

COL. = VARIABLE

ROW = VARIABLE

	11	12	13	14	15	16	17	18	19	20
56	0.4865	0.5773	0.3015	0.2297	0.4754	0.4587	0.3728	-0.0467	-0.2198	-0.2169
57	0.4297	0.5299	0.3067	0.3034	0.4388	0.3764	0.4774	0.0468	-0.2591	-0.2608
58	0.4748	0.4229	0.1916	0.2803	0.4955	0.4139	0.3800	0.0927	-0.2681	-0.2534
59	0.4904	0.5867	0.3465	0.3316	0.5913	0.5531	0.4578	-0.0066	-0.3888	-0.2938
60	0.3520	0.3423	0.2164	0.2282	0.2724	0.2980	0.3713	0.1423	-0.2199	-0.2058
61	0.2388	0.0947	0.0253	0.2068	0.2278	0.0741	0.2792	0.1030	-0.0882	-0.2777
62	0.3913	0.3435	0.2221	0.1117	0.3150	0.2902	0.3300	0.1349	-0.2201	-0.3256
63	0.3760	0.3168	0.1456	0.1722	0.3614	0.2602	0.3930	0.0990	-0.2306	-0.3288
64	0.5348	0.5177	0.3955	0.1989	0.4620	0.4853	0.4278	0.0702	-0.3053	-0.2785
65	0.4683	0.5341	0.3803	0.2463	0.4486	0.4893	0.4412	0.1021	-0.2962	-0.2579
66	0.4974	0.6808	0.4427	0.2845	0.4961	0.4875	0.4639	0.1060	-0.1908	-0.2075
67	0.3929	0.3834	0.2925	0.2762	0.3167	0.4002	0.4128	0.0476	-0.1332	-0.1485
68	0.5534	0.4611	0.3064	0.2357	0.4515	0.3643	0.4684	-0.0432	-0.2056	-0.3094
69	0.4987	0.4204	0.3170	0.2748	0.4677	0.3778	0.4504	-0.0164	-0.2239	-0.2806
70	0.4967	0.4806	0.3422	0.2467	0.5145	0.4548	0.5319	0.0927	-0.2815	-0.3545
71	0.3713	0.5304	0.3538	0.2094	0.3853	0.4596	0.4161	0.0177	-0.2435	-0.2070
72	0.5603	0.3878	0.2330	0.2562	0.4154	0.3564	0.5328	0.1571	-0.3578	-0.4400
73	0.4791	0.4009	0.2954	0.2294	0.4344	0.3912	0.4768	-0.0051	-0.4609	-0.4831
74	0.5933	0.6090	0.4153	0.2315	0.4472	0.5933	0.4166	0.0127	-0.3703	-0.3451
75	0.5259	0.4647	0.2847	0.2505	0.4790	0.4830	0.4249	-0.0419	-0.3909	-0.3636
76	0.4507	0.4362	0.3655	0.2576	0.3172	0.4480	0.3085	-0.0501	-0.2820	-0.3403
77	0.5144	0.5011	0.4191	0.3379	0.4450	0.5647	0.4244	0.0364	-0.3513	-0.3662
78	0.4196	0.3907	0.2416	0.3067	0.3341	0.5104	0.3480	-0.0757	-0.2719	-0.2699
79	0.4844	0.5915	0.3754	0.3364	0.4145	0.4991	0.3962	0.0995	-0.2185	-0.1769
80	0.5918	0.6080	0.3951	0.2506	0.5213	0.5677	0.5423	0.0531	-0.3039	-0.3073
81	0.6252	0.5473	0.3359	0.2559	0.4465	0.4694	0.5502	0.0285	-0.3725	-0.3981
82	0.2984	0.2677	0.2594	0.2052	0.2776	0.2672	0.2053	-0.0281	-0.0656	-0.0156
83	0.5569	0.4012	0.3278	0.2659	0.4420	0.4499	0.4809	-0.0095	-0.3659	-0.3318
84	0.4984	0.4770	0.4067	0.2886	0.3817	0.6037	0.4770	0.0119	-0.2651	-0.2213
85	0.3126	0.3177	0.1659	0.1492	0.2694	0.3889	0.2441	-0.0503	-0.2056	-0.1509
86	0.5007	0.3506	0.2917	0.2373	0.4549	0.4451	0.4531	0.0428	-0.3872	-0.4592
87	0.5167	0.5524	0.4313	0.3764	0.4091	0.5923	0.4428	-0.0242	-0.2983	-0.2466
88	0.4684	0.5278	0.3399	0.3256	0.5304	0.5258	0.4326	0.0037	-0.2213	-0.2578
89	0.5335	0.4281	0.2800	0.1048	0.3803	0.4209	0.4838	0.0154	-0.3855	-0.4158
90	0.1637	0.3390	0.1836	0.2784	0.2254	0.3916	0.3151	0.0089	-0.1661	-0.1340
91	0.5507	0.5201	0.3238	0.2197	0.5097	0.5224	0.4425	-0.0403	-0.3025	-0.3418
92	0.3138	0.2835	0.2380	0.2220	0.3172	0.3057	0.2992	-0.0204	-0.2237	-0.1585
93	0.4819	0.4819	0.3742	0.2302	0.5243	0.5807	0.4180	-0.0741	-0.2644	-0.2746
94	0.4750	0.4567	0.3793	0.3120	0.3437	0.4679	0.4397	0.0161	-0.3893	-0.3234

CORRELATIONS			COL. = VARIABLE		ROW = VARIABLE					
	21	22	23	24	25	26	27	28	29	30
21	1.0000									
22	0.1626	1.0000								
23	0.0968	0.2214	1.0000							
24	0.3573	0.1991	0.2080	1.0000						
25	-0.3787	-0.1597	-0.1049	-0.4557	1.0000					
26	0.4067	0.0989	0.1142	0.2165	-0.2339	1.0000				
27	0.4956	0.1545	0.1743	0.3332	-0.3084	0.5123	1.0000			
28	0.5690	0.1427	0.0824	0.4275	-0.4220	0.3996	0.5417	1.0000		
29	0.3809	0.0260	0.0569	0.3734	-0.5791	0.2961	0.3230	0.5153	1.0000	
30	0.4254	0.1074	0.1378	0.3951	-0.4555	0.3495	0.3814	0.5328	0.5800	1.0000
31	0.4729	0.1651	0.1322	0.3255	-0.3579	0.3108	0.4996	0.5139	0.3853	0.5225
32	0.0800	0.2553	0.2663	0.0225	-0.1275	0.1146	0.1156	0.1849	0.1169	0.1013
33	0.4255	-0.0103	-0.0554	0.3002	-0.4001	0.3309	0.4532	0.6323	0.4945	0.4289
34	0.0977	0.3534	0.1939	0.0770	-0.1183	0.0528	0.0462	0.1453	0.0384	0.1541
35	-0.0738	-0.0429	-0.0920	-0.1667	0.2953	-0.0257	0.0269	-0.1790	-0.1840	-0.1921
36	0.4519	0.1422	0.2386	0.3577	-0.4293	0.3723	0.4371	0.5915	0.5024	0.6134
37	0.4485	0.3791	0.1913	0.3718	-0.4162	0.3139	0.3930	0.4307	0.3745	0.4198
38	0.4798	0.1361	0.0725	0.3445	-0.4984	0.3601	0.4079	0.5901	0.4444	0.4821
39	0.3568	0.2566	0.1679	0.2794	-0.3446	0.3664	0.3430	0.4598	0.3573	0.3725
40	0.6055	0.0248	0.1655	0.4412	-0.4687	0.4506	0.5272	0.6456	0.5923	0.5751
41	0.4343	0.0635	0.0313	0.3262	-0.3071	0.2555	0.4685	0.4220	0.3677	0.3147
42	0.2060	0.3310	0.2566	0.2544	-0.2536	0.2372	0.2856	0.3055	0.2673	0.1805
43	0.4601	0.1885	0.1922	0.4510	-0.4322	0.3899	0.4242	0.5898	0.4719	0.6309
44	0.3600	0.0422	0.0497	0.2814	-0.3924	0.3207	0.4154	0.3143	0.4741	0.4217
45	0.2506	0.1732	0.2960	0.3042	-0.1758	0.2052	0.2116	0.3294	0.1892	0.3273
46	0.5405	0.2688	0.1248	0.3094	-0.3397	0.3787	0.4118	0.6021	0.4257	0.4588
47	0.2392	0.3533	0.2026	0.2011	-0.3186	0.2433	0.4165	0.3124	0.2021	0.2183
48	0.2620	0.0328	0.1681	0.1619	-0.2659	0.3738	0.4163	0.3107	0.2104	0.2506
49	0.3202	0.1989	0.2519	0.3386	-0.2692	0.2149	0.4114	0.3364	0.3309	0.4077
50	-0.2672	-0.0611	-0.0730	-0.3048	0.4524	-0.1582	-0.4114	-0.3224	-0.4219	-0.2755
51	0.3580	0.1245	0.2306	0.3686	-0.4298	0.2577	0.4111	0.4700	0.4616	0.3701
52	0.4014	0.3199	0.3198	0.3819	-0.3869	0.3683	0.4201	0.5089	0.3599	0.4461
53	0.3025	-0.0365	-0.0584	0.1154	-0.2106	0.2362	0.3663	0.2583	0.2445	0.2253
54	0.5189	0.2589	0.2578	0.5367	-0.5355	0.4131	0.4816	0.6083	0.5677	0.6072
55	-0.4845	-0.1231	-0.2107	-0.4403	0.5203	-0.3349	-0.4403	-0.4720	-0.5743	-0.5649
56	0.4523	0.1458	0.1088	0.4056	-0.4116	0.3950	0.5152	0.5337	0.4707	0.4283
57	0.5203	0.2468	0.1458	0.4025	-0.3857	0.4170	0.4968	0.5223	0.3517	0.4329
58	0.4403	0.0314	0.0737	0.4256	-0.3698	0.4020	0.4400	0.5013	0.4824	0.4462
59	0.5313	0.1179	0.0361	0.4105	-0.3953	0.4299	0.5502	0.5734	0.4613	0.4353
60	0.3282	0.2975	0.3444	0.2557	-0.2809	0.2744	0.3146	0.3279	0.2915	0.3197
61	0.2499	0.1324	0.3016	0.1547	-0.2002	0.2097	0.1813	0.1843	0.2471	0.3049
62	0.3774	0.2620	0.1624	0.2774	-0.3904	0.2982	0.4039	0.3750	0.4049	0.2394
63	0.3296	0.2399	0.3460	0.3637	-0.4719	0.3214	0.2778	0.3654	0.3854	0.4521
64	0.4589	0.1272	0.0780	0.4392	-0.4524	0.2516	0.4712	0.6449	0.5287	0.5086
65	0.4795	0.2428	0.1520	0.3471	-0.4813	0.3212	0.5661	0.5830	0.4629	0.4393

## CORRELATIONS

COL. = VARIABLE

ROW = VARIABLE

	21	22	23	24	25	26	27	28	29	30
66	0.5862	0.1922	0.1260	0.3776	-0.4265	0.4379	0.5433	0.6066	0.4760	0.5029
67	0.3069	0.2115	0.1121	0.3179	-0.3538	0.3165	0.3506	0.3691	0.3470	0.3419
68	0.4364	0.1603	0.0492	0.3832	-0.3431	0.3133	0.3901	0.4633	0.3643	0.4682
69	0.5503	0.1087	0.0855	0.3150	-0.3844	0.4069	0.4592	0.5221	0.4416	0.5210
70	0.5297	0.2299	0.1570	0.4310	-0.4922	0.4276	0.5374	0.5417	0.4923	0.5030
71	0.4869	0.0835	-0.0655	0.2035	-0.3214	0.2795	0.5498	0.4617	0.2621	0.3904
72	0.3935	0.2087	0.3135	0.4251	-0.4665	0.3425	0.4413	0.4388	0.3923	0.4991
73	0.4435	0.1134	0.1077	0.4355	-0.5001	0.3059	0.3105	0.5058	0.4715	0.4771
74	0.5501	0.1347	-0.0218	0.4544	-0.4786	0.3531	0.4389	0.6229	0.4879	0.4663
75	0.5116	0.1526	0.1004	0.4303	-0.4481	0.3072	0.4183	0.5734	0.4213	0.3515
76	0.4450	0.1029	0.0218	0.2850	-0.4347	0.2516	0.3165	0.5435	0.3699	0.4247
77	0.5237	0.2144	-0.0027	0.3959	-0.5129	0.2975	0.4218	0.6060	0.5396	0.4520
78	0.4918	0.1236	0.0280	0.4014	-0.4799	0.2822	0.4356	0.5253	0.3739	0.3550
79	0.4936	0.1432	0.0452	0.3461	-0.4313	0.3779	0.4366	0.4923	0.4028	0.4004
80	0.6403	0.2174	0.1004	0.5131	-0.4718	0.4450	0.5497	0.6408	0.4852	0.5752
81	0.4802	0.1005	0.0939	0.3318	-0.4527	0.4067	0.4649	0.5755	0.3823	0.5287
82	0.3717	0.0622	0.0300	0.1333	-0.2218	0.2741	0.2450	0.3062	0.2360	0.2382
83	0.4988	0.1959	0.0806	0.3727	-0.3631	0.3231	0.4012	0.5099	0.4005	0.4733
84	0.4455	0.2098	0.1070	0.3366	-0.4190	0.3384	0.4714	0.4581	0.3791	0.3851
85	0.2256	-0.0280	-0.1044	0.2193	-0.2076	0.0710	0.3057	0.2534	0.2208	0.3024
86	0.4450	0.1420	0.0769	0.4108	-0.4633	0.3150	0.4244	0.5170	0.3859	0.4012
87	0.5330	0.1317	-0.0069	0.3675	-0.4613	0.4142	0.5158	0.5322	0.4164	0.3971
88	0.5399	0.0910	0.1300	0.3611	-0.4215	0.3798	0.5015	0.5094	0.3686	0.4362
89	0.3449	0.0926	0.0095	0.4405	-0.4534	0.2832	0.4627	0.5300	0.4651	0.3926
90	0.2635	0.1891	0.0414	0.1655	-0.2637	0.1708	0.3568	0.2737	0.1841	0.2317
91	0.4614	0.0528	-0.0550	0.5096	-0.5079	0.3166	0.4527	0.6340	0.5536	0.4436
92	0.4076	0.0355	-0.0307	0.2437	-0.2488	0.2504	0.3669	0.3453	0.2138	0.3903
93	0.4490	0.1321	-0.0698	0.3736	-0.4213	0.3244	0.4137	0.5035	0.4223	0.3681
94	0.4558	0.1927	0.1120	0.4540	-0.5128	0.3150	0.4033	0.5349	0.4002	0.4820

CORRELATIONS		COL. = VARIABLE					ROW = VARIABLE				
	31	32	33	34	35	36	37	38	39	40	
31	1.0000										
32	0.1609	1.0000									
33	0.3763	0.0031	1.0000								
34	0.0722	0.1501	0.0468	1.0000							
35	-0.0949	0.1191	-0.1694	-0.1122	1.0000						
36	0.4579	0.1690	0.4474	0.1707	-0.1297	1.0000					
37	0.4245	0.2248	0.3063	0.3717	-0.0905	0.4630	1.0000				
38	0.5055	0.0885	0.5900	0.1789	-0.1755	0.4712	0.4496	1.0000			
39	0.4057	0.2240	0.3167	0.3071	-0.0837	0.4028	0.5022	0.4634	1.0000		
40	0.4322	0.1049	0.5790	0.1360	-0.1316	0.6486	0.4866	0.5763	0.4080	1.0000	
41	0.2889	0.0100	0.4209	0.1666	-0.0118	0.3417	0.3319	0.5326	0.2725	0.4967	
42	0.2910	0.2962	0.1379	0.2222	0.0210	0.3529	0.4637	0.2087	0.3400	0.3080	
43	0.5714	0.0813	0.4337	0.2038	-0.0982	0.6297	0.5441	0.5599	0.5092	0.5806	
44	0.3595	0.0466	0.3824	0.0662	-0.1566	0.3705	0.3079	0.4045	0.3473	0.3786	
45	0.2419	0.2545	0.1766	0.1786	0.0142	0.5169	0.3714	0.3148	0.2207	0.3633	
46	0.5314	0.0893	0.4702	0.1476	-0.0522	0.4587	0.4900	0.4565	0.4810	0.4649	
47	0.2718	0.3277	0.2688	0.2483	-0.0126	0.2687	0.4707	0.3149	0.3628	0.2376	
48	0.2146	0.1740	0.2600	0.1034	-0.0097	0.2432	0.2249	0.2715	0.3228	0.2938	
49	0.2690	0.2584	0.2393	0.1961	-0.1706	0.4048	0.3329	0.3046	0.2675	0.3869	
50	-0.3214	-0.0611	-0.2480	-0.1756	0.2824	-0.3783	-0.3952	-0.3879	-0.2011	-0.3701	
51	0.4253	0.1574	0.3780	0.1153	-0.1353	0.4406	0.4285	0.4482	0.3430	0.4950	
52	0.4737	0.3062	0.3780	0.3338	-0.0774	0.4935	0.5934	0.4730	0.5119	0.4735	
53	0.3281	-0.0431	0.4190	0.0800	-0.0206	0.2685	0.2063	0.4116	0.2661	0.3343	
54	0.4868	0.1123	0.4723	0.1599	-0.1264	0.5535	0.5374	0.5551	0.4994	0.6007	
55	-0.4503	-0.0155	-0.4567	0.0034	0.2367	-0.4521	-0.4175	-0.4967	-0.3686	-0.5170	
56	0.4976	0.1889	0.4685	0.0912	0.0070	0.3804	0.4081	0.4934	0.4371	0.5608	
57	0.4431	0.2114	0.3571	0.1937	0.0040	0.4226	0.5617	0.4796	0.4327	0.4659	
58	0.3932	0.1062	0.5112	0.0721	-0.0104	0.4729	0.4109	0.4756	0.4510	0.5757	
59	0.4392	0.0762	0.5138	0.1650	0.0233	0.4418	0.5101	0.6177	0.4621	0.5432	
60	0.2282	0.3631	0.2382	0.3304	0.0543	0.3645	0.4684	0.3228	0.4381	0.3275	
61	0.2043	0.2404	0.1317	0.2633	-0.1146	0.3340	0.3813	0.3534	0.2182	0.2634	
62	0.3221	0.2385	0.3217	0.2104	-0.1118	0.3755	0.5041	0.4382	0.3827	0.4715	
63	0.3437	0.3317	0.2656	0.1757	-0.1846	0.3870	0.4953	0.4370	0.4029	0.3800	
64	0.4833	0.1276	0.5326	0.1200	-0.1469	0.5755	0.4297	0.5259	0.4901	0.5649	
65	0.5035	0.1699	0.5294	0.1525	-0.1297	0.5077	0.4706	0.5301	0.4689	0.5417	
66	0.4613	0.1039	0.5171	0.1880	-0.0876	0.5039	0.4634	0.5336	0.5659	0.6092	
67	0.2840	0.2492	0.4105	0.2865	-0.0785	0.3785	0.4343	0.3959	0.3889	0.3969	
68	0.4010	0.0867	0.4341	0.1403	-0.0750	0.5194	0.5033	0.4626	0.3581	0.4719	
69	0.4681	0.1445	0.4820	0.0547	-0.0486	0.5418	0.4549	0.5614	0.3232	0.5446	
70	0.5643	0.1640	0.4397	0.1966	-0.1467	0.5243	0.5685	0.5714	0.4767	0.5930	
71	0.4747	0.0055	0.3943	0.0659	-0.0695	0.3498	0.3510	0.4322	0.3654	0.4326	
72	0.3648	0.1650	0.3664	0.2621	-0.1202	0.5539	0.4703	0.5606	0.4644	0.5046	
73	0.4342	0.0905	0.3983	0.1403	-0.1956	0.4773	0.4837	0.4930	0.3781	0.5403	
74	0.4776	-0.0429	0.5818	0.0437	-0.0748	0.4882	0.3939	0.5499	0.4261	0.5918	
75	0.5146	0.1718	0.4491	0.1292	-0.0687	0.4703	0.4471	0.4959	0.3859	0.5534	

CORRELATIONS		COL. = VARIABLE					ROW = VARIABLE				
	31	32	33	34	35	36	37	38	39	40	
76	0.4263	0.1029	0.4150	0.1500	-0.2679	0.4296	0.3873	0.3799	0.3212	0.4109	
77	0.4257	0.0472	0.4784	0.2039	-0.1866	0.5162	0.5142	0.5775	0.4236	0.5078	
78	0.4522	0.0398	0.4822	-0.0056	-0.1311	0.3894	0.2491	0.4690	0.2950	0.4452	
79	0.3613	0.0334	0.4135	0.1271	-0.0959	0.4544	0.2822	0.4459	0.3834	0.5086	
80	0.5662	0.0714	0.4730	0.1338	-0.1383	0.5361	0.5308	0.5683	0.4760	0.6078	
81	0.4260	0.0878	0.5055	0.1806	-0.1282	0.6123	0.4138	0.5815	0.5067	0.5730	
82	0.2855	-0.0119	0.2856	0.0671	0.0210	0.2601	0.1374	0.3452	0.1828	0.2072	
83	0.4871	0.0500	0.3704	0.0975	-0.1238	0.5893	0.3960	0.4807	0.4533	0.4100	
84	0.4176	-0.0337	0.4094	0.0599	-0.0830	0.3922	0.3669	0.4342	0.4136	0.4494	
85	0.3448	-0.1734	0.3345	-0.0205	-0.0170	0.2446	0.2878	0.2976	0.1274	0.3024	
86	0.4691	0.0181	0.4684	0.1066	-0.1068	0.4124	0.4117	0.5826	0.3959	0.4234	
87	0.4647	0.0108	0.5512	-0.0400	-0.0788	0.4981	0.2992	0.4201	0.3924	0.4956	
88	0.4288	-0.0155	0.5188	0.0697	-0.1125	0.4145	0.3766	0.5392	0.4928	0.4346	
89	0.4957	0.0693	0.5590	0.0020	-0.1726	0.4589	0.3656	0.5657	0.3727	0.5746	
90	0.3345	0.1715	0.2774	0.0481	-0.0470	0.1490	0.2671	0.3212	0.2899	0.1899	
91	0.4746	-0.0028	0.6265	0.0203	-0.1840	0.4657	0.3327	0.6202	0.4191	0.5699	
92	0.2921	-0.0873	0.2776	0.0190	-0.0585	0.3110	0.1644	0.4010	0.3537	0.2641	
93	0.4288	-0.1073	0.4895	-0.0567	-0.1096	0.3298	0.2917	0.4956	0.3654	0.4191	
94	0.4852	0.1830	0.3243	0.1779	-0.1818	0.4092	0.5076	0.3998	0.4971	0.4451	

CORRELATIONS		COL. = VARIABLE				ROW = VARIABLE				
	41	42	43	44	45	46	47	48	49	50
41	1.0000									
42	0.1380	1.0000								
43	0.3882	0.2983	1.0000							
44	0.2991	0.1438	0.3639	1.0000						
45	0.2809	0.3627	0.4063	0.1316	1.0000					
46	0.4654	0.2913	0.5240	0.4509	0.2611	1.0000				
47	0.1224	0.4970	0.3447	0.1474	0.2405	0.2765	1.0000			
48	0.3747	0.0223	0.2600	0.3102	0.2181	0.3737	0.1536	1.0000		
49	0.2394	0.2282	0.4365	0.2121	0.4430	0.2890	0.2023	0.2606	1.0000	
50	-0.1907	-0.3035	-0.3491	-0.2632	-0.2555	-0.2097	-0.2421	-0.0898	-0.2447	1.0000
51	0.3134	0.3905	0.4605	0.3122	0.2117	0.4195	0.3248	0.1920	0.2256	-0.2949
52	0.3133	0.4124	0.5658	0.3623	0.3304	0.5001	0.4912	0.3456	0.3417	-0.3496
53	0.4336	0.0872	0.2827	0.2430	0.1210	0.3563	0.0704	0.2021	0.2242	-0.0712
54	0.4656	0.4081	0.6805	0.3947	0.3309	0.6051	0.4132	0.3039	0.3929	-0.3373
55	-0.3294	-0.3088	-0.5209	-0.4543	-0.1924	-0.4951	-0.2863	-0.2154	-0.3346	0.3460
56	0.3705	0.3034	0.5109	0.3875	0.2025	0.4977	0.3535	0.2786	0.2869	-0.3791
57	0.3543	0.3850	0.5518	0.3253	0.3119	0.5119	0.4807	0.2289	0.3664	-0.2869
58	0.3542	0.2546	0.4887	0.3800	0.2585	0.4517	0.1788	0.2889	0.2780	-0.1755
59	0.4652	0.2724	0.5453	0.3616	0.3605	0.4962	0.2922	0.3476	0.2655	-0.3137
60	0.1801	0.4178	0.4019	0.2781	0.3637	0.3496	0.4849	0.2908	0.2846	-0.2808
61	0.2186	0.2082	0.3388	0.1816	0.4147	0.3067	0.2122	0.2062	0.3590	-0.2039
62	0.3313	0.3517	0.4068	0.2680	0.2610	0.3091	0.3803	0.2300	0.3202	-0.3367
63	0.2595	0.4697	0.4993	0.2785	0.3887	0.3707	0.5523	0.2105	0.4643	-0.3290
64	0.3520	0.3405	0.5463	0.3380	0.2497	0.4749	0.2940	0.2508	0.3405	-0.2973
65	0.4616	0.3643	0.5220	0.3825	0.2913	0.5809	0.3418	0.3172	0.3914	-0.3064
66	0.5184	0.3145	0.6005	0.4201	0.2867	0.6353	0.3086	0.4208	0.3520	-0.2693
67	0.2762	0.3037	0.4779	0.3030	0.3024	0.3534	0.4096	0.2485	0.3975	-0.1509
68	0.3197	0.2511	0.6197	0.3273	0.3647	0.4286	0.3259	0.3371	0.4009	-0.2517
69	0.3361	0.2623	0.5973	0.3017	0.4378	0.4618	0.3271	0.2983	0.3318	-0.1971
70	0.3342	0.4070	0.5842	0.4392	0.2699	0.4465	0.4371	0.2331	0.3396	-0.3427
71	0.3274	0.1234	0.3824	0.3212	0.1833	0.4465	0.1608	0.3088	0.2161	-0.2392
72	0.3257	0.3327	0.5924	0.3815	0.4914	0.4396	0.4258	0.3563	0.4921	-0.3503
73	0.2887	0.3165	0.5353	0.3386	0.2841	0.3523	0.1814	0.1335	0.3518	-0.4080
74	0.4400	0.1800	0.5630	0.3362	0.2001	0.5050	0.2262	0.2621	0.2493	-0.3620
75	0.3394	0.2331	0.5023	0.2788	0.2834	0.3890	0.3087	0.2687	0.3074	-0.3468
76	0.2333	0.1729	0.4728	0.2576	0.1470	0.3191	0.2471	0.1997	0.2275	-0.3649
77	0.3901	0.2520	0.5440	0.3804	0.2893	0.4992	0.3292	0.2551	0.3466	-0.3789
78	0.3064	0.1400	0.4364	0.3780	0.2239	0.3594	0.2280	0.1664	0.2473	-0.2355
79	0.4133	0.1914	0.4687	0.4484	0.1535	0.4531	0.2381	0.3443	0.2906	-0.2518
80	0.4965	0.2493	0.6529	0.4311	0.3327	0.6167	0.2887	0.3148	0.3534	-0.3048
81	0.3815	0.2664	0.6470	0.3578	0.3832	0.4892	0.2655	0.3597	0.4393	-0.3096
82	0.2325	0.0515	0.3162	0.1551	0.1406	0.2896	0.0934	0.1967	0.1446	-0.0833
83	0.3036	0.2473	0.5615	0.3340	0.3961	0.5447	0.1546	0.2550	0.3828	-0.3208
84	0.3777	0.1893	0.4943	0.3605	0.2149	0.4682	0.2303	0.3635	0.2906	-0.1715
85	0.2845	0.0536	0.2793	0.1512	0.1081	0.2491	0.0541	0.1111	0.0950	-0.1637

CORRELATIONS		COL. = VARIABLE					ROW = VARIABLE			
	41	42	43	44	45	46	47	48	49	50
86	0.2599	0.1864	0.5676	0.2996	0.2443	0.3923	0.3813	0.2231	0.2622	-0.3324
87	0.3091	0.1537	0.4662	0.4208	0.2049	0.5327	0.2682	0.3742	0.2559	-0.2960
88	0.4300	0.1910	0.5622	0.4089	0.2137	0.5065	0.3295	0.3850	0.2241	-0.2164
89	0.3461	0.2240	0.5277	0.3367	0.2757	0.3675	0.2329	0.2568	0.3765	-0.2931
90	0.2223	0.0820	0.2723	0.3124	0.0405	0.4130	0.1710	0.2540	0.2133	-0.0963
91	0.4140	0.1542	0.5600	0.4087	0.2102	0.4448	0.2211	0.2853	0.3114	-0.3324
92	0.2760	-0.0131	0.3324	0.2180	0.1948	0.3448	0.1204	0.2036	0.2082	-0.1032
93	0.3102	0.1743	0.4639	0.2936	0.1824	0.3499	0.1844	0.2107	0.1882	-0.2198
94	0.3264	0.3043	0.5012	0.3554	0.2336	0.4847	0.3467	0.3639	0.3150	-0.3929

CORRELATIONS		COL. = VARIABLE					ROW = VARIABLE				
	51	52	53	54	55	56	57	58	59	60	
51	1.0000										
52	0.4780	1.0000									
53	0.3096	0.2146	1.0000								
54	0.6180	0.6122	0.2949	1.0000							
55	-0.4905	-0.4258	-0.3015	-0.6817	1.0000						
56	0.5460	0.5053	0.3204	0.5966	-0.5063	1.0000					
57	0.3720	0.5988	0.2222	0.6329	-0.4819	0.6046	1.0000				
58	0.4763	0.4124	0.3859	0.4628	-0.4348	0.4472	0.3329	1.0000			
59	0.3972	0.4994	0.3836	0.5877	-0.4320	0.5334	0.5679	0.5271	1.0000		
60	0.3245	0.5412	0.1110	0.4427	-0.2978	0.3690	0.4433	0.2382	0.4176	1.0000	
61	0.2090	0.3737	0.1362	0.3381	-0.2440	0.1686	0.1962	0.2270	0.2935	0.4248	
62	0.4008	0.4359	0.2140	0.4931	-0.3409	0.4430	0.4831	0.2413	0.4640	0.4073	
63	0.4454	0.5543	0.0880	0.6105	-0.5079	0.4132	0.5444	0.3332	0.3715	0.5174	
64	0.4706	0.4645	0.2442	0.5617	-0.4932	0.4869	0.4457	0.5231	0.4924	0.2902	
65	0.4298	0.4888	0.3512	0.6416	-0.4814	0.5216	0.5060	0.4668	0.5548	0.2889	
66	0.4481	0.5241	0.3774	0.6516	-0.5391	0.5845	0.5541	0.5497	0.5668	0.3690	
67	0.4233	0.4244	0.2885	0.4971	-0.3937	0.3682	0.4222	0.4097	0.4733	0.3599	
68	0.3929	0.4776	0.2838	0.5617	-0.4547	0.4410	0.4805	0.4217	0.5405	0.3156	
69	0.3957	0.4620	0.3773	0.5496	-0.4378	0.4240	0.5283	0.4915	0.5343	0.3648	
70	0.5612	0.6029	0.2980	0.6502	-0.5168	0.5971	0.6290	0.4431	0.5195	0.3562	
71	0.2847	0.3584	0.3386	0.3955	-0.3553	0.4859	0.3882	0.3105	0.4899	0.2246	
72	0.4435	0.5433	0.3267	0.6095	-0.4840	0.4527	0.5124	0.4417	0.4974	0.4764	
73	0.4429	0.4328	0.3288	0.4969	-0.5125	0.4104	0.4225	0.4863	0.4738	0.2355	
74	0.4593	0.4605	0.3466	0.5422	-0.4882	0.5370	0.4311	0.5221	0.5852	0.2308	
75	0.4240	0.4833	0.2830	0.4986	-0.3491	0.5191	0.4679	0.4291	0.6583	0.2359	
76	0.4177	0.4172	0.2339	0.4742	-0.3476	0.4543	0.3849	0.3447	0.4554	0.2211	
77	0.4132	0.4850	0.3303	0.5808	-0.4778	0.4732	0.5272	0.4199	0.6761	0.3452	
78	0.3945	0.3499	0.2659	0.4357	-0.4538	0.4622	0.3657	0.3862	0.4238	0.2131	
79	0.3379	0.3613	0.3045	0.4601	-0.4458	0.4704	0.3849	0.4280	0.4276	0.2206	
80	0.4923	0.5038	0.3004	0.6906	-0.5574	0.6369	0.5981	0.4776	0.6083	0.3265	
81	0.4013	0.4895	0.3733	0.5329	-0.5118	0.4547	0.4926	0.4505	0.5563	0.3746	
82	0.2760	0.2459	0.4404	0.3387	-0.2811	0.2096	0.2696	0.2152	0.3468	0.1966	
83	0.3571	0.3748	0.3119	0.5035	-0.4503	0.4016	0.4864	0.4200	0.4531	0.3296	
84	0.4532	0.4350	0.4081	0.5260	-0.4736	0.3822	0.3849	0.4408	0.4471	0.3106	
85	0.2303	0.2254	0.2982	0.2280	-0.2091	0.2362	0.2193	0.3050	0.3701	0.0154	
86	0.4957	0.4360	0.3747	0.5278	-0.4686	0.4779	0.4820	0.4497	0.5319	0.3368	
87	0.3347	0.4038	0.3111	0.4904	-0.4669	0.5055	0.4046	0.4764	0.4964	0.3099	
88	0.4492	0.4515	0.3264	0.5421	-0.4824	0.4555	0.4529	0.4420	0.5376	0.3629	
89	0.4588	0.3602	0.4164	0.4814	-0.4203	0.4790	0.3576	0.5462	0.4341	0.2329	
90	0.2342	0.2584	0.1979	0.3227	-0.2637	0.3044	0.3804	0.2718	0.3090	0.2264	
91	0.5175	0.3767	0.4642	0.5758	-0.5573	0.5416	0.4184	0.5578	0.5294	0.2469	
92	0.1226	0.2278	0.3439	0.3205	-0.4061	0.2149	0.3335	0.2803	0.3657	0.1575	
93	0.4281	0.3256	0.3623	0.4763	-0.4480	0.4506	0.3880	0.3884	0.5838	0.1952	
94	0.3797	0.5572	0.1910	0.5776	-0.4959	0.4492	0.4982	0.3995	0.5129	0.3640	

CORRELATIONS		COL. = VARIABLE					ROW = VARIABLE				
	61	62	63	64	65	66	67	68	69	70	
61	1.0000										
62	0.3348	1.0000									
63	0.4583	0.4662	1.0000								
64	0.1302	0.3482	0.3786	1.0000							
65	0.2262	0.4485	0.3906	0.6322	1.0000						
66	0.2618	0.3829	0.4410	0.5206	0.6102	1.0000					
67	0.2111	0.4113	0.4233	0.3784	0.3923	0.4467	1.0000				
68	0.3216	0.3928	0.4087	0.3991	0.5159	0.4636	0.5121	1.0000			
69	0.3094	0.3713	0.4355	0.4270	0.4882	0.5196	0.4859	0.6243	1.0000		
70	0.2160	0.5180	0.5271	0.5653	0.5642	0.5939	0.5479	0.5199	0.5951	1.0000	
71	0.0569	0.2710	0.2073	0.4512	0.4674	0.5186	0.2880	0.3566	0.4244	0.4812	
72	0.4311	0.4545	0.5598	0.4316	0.4707	0.4689	0.4700	0.5243	0.5212	0.5749	
73	0.2491	0.3416	0.3707	0.4226	0.3559	0.4249	0.3593	0.3115	0.4079	0.5367	
74	0.1089	0.4267	0.2911	0.5546	0.5634	0.5933	0.3934	0.4419	0.4693	0.5502	
75	0.2049	0.4581	0.3227	0.5080	0.5171	0.4500	0.4214	0.4588	0.4198	0.5983	
76	0.0782	0.3053	0.2806	0.4788	0.3281	0.3518	0.2994	0.4003	0.3327	0.4648	
77	0.2736	0.4661	0.3291	0.6038	0.5869	0.5319	0.4625	0.4711	0.5234	0.5532	
78	0.0889	0.3234	0.2948	0.4632	0.4443	0.4079	0.3424	0.3595	0.3620	0.5083	
79	0.1029	0.3356	0.3123	0.4647	0.4553	0.6172	0.3957	0.3036	0.3576	0.4625	
80	0.2241	0.4239	0.4410	0.5363	0.6199	0.6339	0.4108	0.5447	0.5496	0.6305	
81	0.2682	0.3350	0.4204	0.4954	0.5342	0.5335	0.4787	0.5885	0.5565	0.5114	
82	0.1459	0.2653	0.1767	0.1956	0.3545	0.2895	0.2376	0.2788	0.3679	0.3186	
83	0.2832	0.3474	0.3486	0.5008	0.5274	0.4562	0.3817	0.4947	0.5346	0.4898	
84	0.1033	0.2815	0.3019	0.4143	0.4913	0.4887	0.4315	0.4513	0.4702	0.4819	
85	-0.0232	0.1358	0.0250	0.3600	0.2974	0.2284	0.1890	0.2176	0.2773	0.2408	
86	0.2729	0.3793	0.4400	0.4410	0.4303	0.4441	0.4141	0.4210	0.5569	0.6196	
87	0.0844	0.3494	0.2582	0.4746	0.5299	0.4905	0.3782	0.4560	0.4400	0.4693	
88	0.1113	0.3312	0.3815	0.5400	0.5407	0.5997	0.4118	0.4861	0.5422	0.5622	
89	0.1113	0.4100	0.2823	0.5338	0.5133	0.4696	0.3826	0.4121	0.4554	0.5294	
90	0.1369	0.2840	0.2120	0.3732	0.4476	0.3519	0.3200	0.2146	0.2629	0.3105	
91	0.1462	0.3839	0.3570	0.5860	0.5314	0.5673	0.4330	0.5227	0.4999	0.5784	
92	0.1075	0.1371	0.1333	0.2866	0.3488	0.3458	0.2034	0.2966	0.4312	0.3163	
93	0.0634	0.3314	0.2562	0.4746	0.4827	0.4569	0.3431	0.4585	0.4609	0.5256	
94	0.2475	0.4190	0.4346	0.4824	0.4816	0.4916	0.3787	0.4524	0.3982	0.4845	

CORRELATIONS		COL. = VARIABLE					ROW = VARIABLE				
	71	72	73	74	75	76	77	78	79	80	
71	1.0000										
72	0.3258	1.0000									
73	0.3214	0.4391	1.0000								
74	0.5413	0.4452	0.5710	1.0000							
75	0.4192	0.4905	0.5815	0.6453	1.0000						
76	0.4511	0.3348	0.4845	0.4704	0.5904	1.0000					
77	0.4872	0.4674	0.5490	0.6643	0.6647	0.5930	1.0000				
78	0.4635	0.3947	0.4283	0.5933	0.4829	0.5119	0.5552	1.0000			
79	0.4235	0.3918	0.4407	0.5385	0.3896	0.3955	0.4762	0.4329	1.0000		
80	0.5357	0.5074	0.4785	0.6611	0.5817	0.5096	0.6452	0.5128	0.5417	1.0000	
81	0.4588	0.6338	0.5117	0.5697	0.5328	0.4720	0.5173	0.4468	0.4924	0.5797	
82	0.1760	0.2928	0.2530	0.3690	0.2977	0.2306	0.3836	0.2242	0.2941	0.3917	
83	0.4232	0.5498	0.4308	0.5257	0.4567	0.3810	0.5317	0.4496	0.3819	0.5688	
84	0.4253	0.4843	0.4362	0.5782	0.4670	0.4028	0.5138	0.4437	0.4878	0.5510	
85	0.3523	0.1924	0.3026	0.4120	0.2904	0.2327	0.3886	0.2948	0.2595	0.3318	
86	0.3724	0.5733	0.5985	0.5903	0.5390	0.4065	0.5641	0.5185	0.3866	0.5687	
87	0.5970	0.4455	0.3487	0.6700	0.5090	0.4783	0.5454	0.5389	0.5357	0.6322	
88	0.5434	0.4577	0.3701	0.6070	0.4399	0.4254	0.5278	0.4628	0.4652	0.6272	
89	0.4062	0.5018	0.4939	0.5856	0.5128	0.3338	0.5013	0.4353	0.3364	0.5013	
90	0.3218	0.1681	0.1727	0.2727	0.2453	0.1464	0.3217	0.2622	0.2504	0.3612	
91	0.4488	0.4945	0.5440	0.6831	0.5450	0.4074	0.5799	0.5083	0.4749	0.6037	
92	0.4088	0.3479	0.2733	0.3568	0.2489	0.2556	0.3927	0.3693	0.3242	0.4121	
93	0.4851	0.4202	0.4555	0.6325	0.5081	0.3974	0.5675	0.5160	0.3941	0.5759	
94	0.4160	0.4300	0.4856	0.5232	0.5436	0.5150	0.5842	0.4519	0.4322	0.5687	

	CORRELATIONS					COL. = VARIABLE					ROW = VARIABLE				
	81	82	83	84	85	86	87	88	89	90	86	87	88	89	90
81	1.0000														
82	0.3031	1.0000													
83	0.6501	0.3891	1.0000												
84	0.5631	0.3972	0.4899	1.0000											
85	0.2765	0.1738	0.2164	0.4261	1.0000										
86	0.5003	0.4492	0.5102	0.5058	0.2519	1.0000									
87	0.5344	0.3204	0.5086	0.6096	0.3252	0.4642	1.0000								
88	0.5530	0.3845	0.5016	0.5542	0.2361	0.5785	0.6118	1.0000							
89	0.5126	0.2545	0.3967	0.5361	0.4193	0.5159	0.5553	0.4853	1.0000						
90	0.2474	0.0908	0.3229	0.3172	0.1874	0.2662	0.3812	0.3524	0.3120	1.0000					
91	0.5454	0.3926	0.5134	0.5357	0.3478	0.6349	0.6000	0.5467	0.7509	0.2876					
92	0.4693	0.3294	0.4950	0.4143	0.2038	0.4141	0.4459	0.4526	0.2426	0.2908					
93	0.4649	0.3684	0.4326	0.5726	0.3825	0.5977	0.5474	0.5465	0.5121	0.2368					
94	0.4872	0.2791	0.4136	0.5116	0.3056	0.4845	0.5233	0.4639	0.3640	0.3563					

	CORRELATIONS			COL. = VARIABLE	ROW = VARIABLE
	91	92	93	94	
91	1.0000				
92	0.3440	1.0000			
93	0.6732	0.3746	1.0000		
94	0.4537	0.4039	0.4123	1.0000	

-1 TIME 0.8470 MIN.

ABOVE IS THE TOTAL TIME USED.

## APPENDIX E

PER CENT OF EXPLAINED VARIANCE ACCOUNTED FOR BY EACH FACTOR  
IN PRINCIPAL COMPONENTS ANALYSIS

<u>Factor</u>	<u>Variance</u>	<u>Factor</u>	<u>Variance</u>
1	52.16	11	2.15
2	6.71	12	2.05
3	4.52	13	1.90
4	3.33	14	1.86
5	2.08	15	1.73
6	2.76	16	1.72
7	2.71	17	1.63
8	2.55	18	1.57
9	2.43	19	1.53
10	2.29	20	1.50

APPENDIX F

COMMUNICATION DENIAL INVENTORY  
REVISED FORM

DIRECTIONS: Please read this questionnaire carefully, giving your own responses to the items. Sign your name or give your K.U. student number. All personal information will be kept confidential and all of your answers will be held in strict confidence by this researcher.

The following statements are in reference to your communication experience with a specific individual in this University. Please choose one of the following individuals and put his title in the space provided.

- A. Academic Advisor
- B. Resident Director (e.g., Housemother, Dormitory Director, House Manager, Proctor, etc.)
- C. Instructor of this course.

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Indicate title of one of above

Choose the response for each item that most closely reflects your feelings about your communication experience with this person. Consider only the person you have indicated while answering the questions.

Circle only one response to each statement, and please respond to all statements.

- SA..... Strongly Agree
- A..... Agree (I tend to agree)
- U..... Uncertain
- D..... Disagree (I tend to disagree)
- SD..... Strongly Disagree

1. He sometimes encourages me to express my ideas. SA A U D SD
2. He seems to hear what I say but he doesn't do anything about it. SA A U D SD
3. He understands me. SA A U D SD
4. I usually cannot understand what he tries to tell me. SA A U D SD
5. He accepts my supportive remarks but will not listen to any criticism. SA A U D SD
6. He understands exactly how I see things. SA A U D SD
7. I am usually more interested in what I have to say than in what he is saying. SA A U D SD
8. I usually feel free to talk with him. SA A U D SD
9. When I speak to him, he usually replies with something unrelated to my message. SA A U D SD
10. He frequently discourages my attempts to express my ideas. SA A U D SD
11. He does not know how I feel. SA A U D SD
12. He gives me the impression that he just tolerates my opinion. SA A U D SD
13. He frequently seems pleased with our conversations. SA A U D SD
14. His opinion is important to me. SA A U D SD
15. He rarely seems to hear what I say. SA A U D SD
16. I frankly don't care about understanding his feelings. SA A U D SD
17. I speak to him only because I have to. SA A U D SD
18. He generally encourages me to express my opinion. SA A U D SD
19. He frequently ignores me when I speak to him. SA A U D SD

20. I just can't go to him when I have a problem to discuss. SA A U D SD
21. He usually doesn't take my suggestions seriously. SA A U D SD
22. I can usually fit right in with what he is saying. SA A U D SD
23. He listens to me only because he has to. SA A U D SD
24. He changes the subject when I discuss policy matters with him. SA A U D SD
25. I usually feel I can speak freely with him. SA A U D SD
26. He doesn't answer my questions completely. SA A U D SD
27. He makes himself available. SA A U D SD
28. Talking with him is a pleasing experience. SA A U D SD
29. He is a person I really don't care about knowing. SA A U D SD
30. He is an excellent listener. SA A U D SD
31. He usually uses just the right words when he tries to understand how I am feeling. SA A U D SD
32. He sometimes seems displeased because I talk with him. SA A U D SD
33. He isn't willing to accept my suggestions. SA A U D SD
34. He takes quick action concerning my requests. SA A U D SD
35. He doesn't want to know what I mean when I say something. SA A U D SD
36. I don't trust his reaction to what I tell him. SA A U D SD

37. He doesn't respond directly to my statements or questions. SA A U D SD
38. He does not allow me to get close or personal with him. SA A U D SD
39. I can be candid with him. SA A U D SD
40. It is safer to keep my ideas to myself when with him. SA A U D SD
41. He tries to understand me. SA A U D SD
42. He interrupts me when I talk about something that really means a lot to me. SA A U D SD
43. I can share experiences freely with him. SA A U D SD
44. Usually he avoids my questions. SA A U D SD
45. He is willing to discuss points of disagreement. SA A U D SD
46. He doesn't accept my opinion. SA A U D SD
47. He is honest with me. SA A U D SD
48. Sometimes he tries to change the subject. SA A U D SD
49. His response to me cuts off further communication. SA A U D SD
50. I feel restricted in communication with him. SA A U D SD
51. When I have an important question, I hesitate to approach him. SA A U D SD
52. He uses his status to make me accept his ideas. SA A U D SD
53. He respects my opinion. SA A U D SD
54. He tends to finalize matters before I can express my thoughts or feelings. SA A U D SD
55. He inhibits the expression of my ideas. SA A U D SD

56. He usually avoids me. SA A U D SD
57. He usually avoids communication with me. SA A U D SD
58. He understands the value of my message. SA A U D SD

Scoring Procedure for the Communication Denial Inventory

The phrasing of the items determines whether a response of "strongly agrees" or "strongly disagrees" receives a weight of four or zero. Twenty-one items are positively phrased so that the "strongly agrees" response to them receives a weight of zero, and the "strongly disagrees" response receives a weight of four. Thirty-seven items are negatively phrased and the "strongly agrees" response is given a weight of four, while the "strongly disagrees" response is given a weight of zero. The lowest possible communication denial score is 0, and the highest possible communication denial score is 232; the higher the total score, the greater the perception of experienced communication denial.

The following items are scored with the "strongly agrees" response receiving a weight of zero and the "strongly disagrees" response receiving a weight of four.

1, 3, 6, 8, 13, 18, 22, 25, 27, 28, 29, 30, 31, 34, 39, 41, 43, 45, 47, 53, 58.

The following items are scored with the "strongly agrees" response receiving a weight of four and the "strongly disagrees" response receiving a weight of zero.

2, 4, 5, 7, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 23, 24, 26, 32, 33, 35, 36, 37, 38, 40, 42, 44, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57