An Examination of Cognitive Complexity & Its Relationship with Urban-Rural Locality

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AN EXAMINATION OF COGNITIVE COMPLEXITY
AND ITS RELATIONSHIP WITH
URBAN–RURAL LOCALITY

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In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Charla J. Tichenor
May, 1981
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This study examined the relationship of cognitive complexity with urban-rural locality, communication apprehension, and world view. Emphasis was placed upon the population variable of urban-rural locality as it related to cognitive complexity; however, the variables of communication apprehension and world view were also examined in an attempt to discover an interrelationship among the variables. Using the Crockett Role Category Questionnaire, the short version of McCroskey's Personal Report of Communication Apprehension, a world view scale as developed by Dodd and Garmon, and selected demographic and group membership items, the researcher tested one hundred fifteen undergraduate college students. Data analyses included analyses of variance and correlation and regression analyses.

Results of the study indicated a significant sex difference in which females were shown to have a higher degree of cognitive complexity than males. A multiple regression found the variables of number of children in
the family, sex, and other organization membership to be chief predictors of cognitive complexity. The group membership variables were discovered to have a strong correlation with one another, with the other organization membership variable exerting the strongest influence. An analysis of variance, however, revealed the major finding of the study, a significant three-way interaction of the variables of population, world view, and communication apprehension with cognitive complexity.
CHAPTER I
INTRODUCTION, REVIEW OF LITERATURE, AND RESEARCH QUESTIONS

Introduction

In recent years, research in the area of speech communication has expanded tremendously. Interest has been generated over a wide and varied range of study. The area of cognitive complexity, as an aspect of interpersonal communication, has received a great deal of consideration. In the masses of material available on this concept, however, little attention has been given to the demographic characteristics of the individual. Likewise, the effects of urban and rural background upon a person has received attention from a variety of fields, but very little work has been done in regard to its relationship with communication.

Such variables as occupation, income, values, beliefs, attitudes, and helping behavior have been found to be linked with the rural or urban background of an individual. Background locality has been found to have a profound influence upon individuals throughout their lives, yet little work has been done considering how this
background locality might affect a person's communication skills and habits. Persons from rural backgrounds are generally considered friendly, eager to help, and experienced in many types of interpersonal communication. Urban residents are traditionally known to have a high degree of fear and suspicion, fewer interpersonal contacts, and a definite degree of isolation.

The degree of cognitive complexity-simplicity of an individual has been shown to be affected by such variables as school size and group affiliations. A person's ability to perceive and evaluate information is known to vary according to the extent of social interaction and personal experience. Cognitive complexity-simplicity has been linked with such variables as occupation, threat, values, and value judgments. The degree of cognitive complexity has been shown to influence the helping behavior of an individual as well as the ability of the individual to adapt to the presence of inconsistent information.

The purpose of this study is to examine the possible connection between the degree of cognitive complexity-simplicity of an individual and his or her urban-rural background locality. Also, as communication apprehension has been shown to be affected by such factors as social experience, perception, and background locality, and world view has been shown to be linked with communication
apprehension, these two variables are also explored in an attempt to discover a relationship existing among these concepts.

Review of Literature

Defining Cognitive Complexity

Conceptual definition. The term "cognitive complexity" may be viewed in a number of ways. Basically, cognitive complexity is the relative number of concepts used by a person in perceiving and evaluating stimuli.¹ These concepts are based upon the individual's personal experiences and social interactions and are often referred to as constructs. According to Bieri, an individual who has done much study in the area of cognitive complexity, a complex cognitive structure is

A system of interpersonal constructs which differentiate highly among persons . . . A construct system which provides poor differentiation among persons is considered to be cognitively simple in structure.²

Another experienced researcher in the field, Crockett, stated that a cognitive system is considered relatively complex in structure when it contains a large number of elements and these elements or constructs show a high


degree of interconnectedness. The cognitively complex person is generally considered to be more differentiated, more flexible, better able to handle conflicting information, etc. Cronen wrote that "the human being is seen as actively creating constructs, construing the environment, and using his constructions to create plans for more efficiently using his cognitions in social interactions." Delia, a more recent researcher of cognitive complexity, suggested that

The nature of an interpersonal impression to a considerable degree will be a function of the system of constructs which the perceiver brings to the interpersonal situation. Those with more complex construct systems should have impressions that are more extensive, motivationally rich, and highly integrated.

Vannoy emphasized the fact that in many studies of cognitive complexity, the results have been found to pertain to the area of research on cognitive complexity in which the individual construes person-objects in his environment.

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Operational definition. George A. Kelly, who provided a basic background for the work in cognitive complexity, developed a measurement for the constructs that individuals use to structure their environments and thus, their responses. Many variations of this method, the Role Construct Repertory Test (Rep Test), have been devised over the years. The basic version, however, is the Grid Version in which a subject is presented a figure list and asked to identify an individual who is personally known to him who fits each of a given variety of roles. Then, three of the individuals on the figure list are considered together at one time, and the subject is asked to think of a way in which two of the three are similar to each other but different from the third individual. Next, the subject is asked to consider each of the other individuals on the figure list and indicate whether they are similar to the two individuals together or to the solitary third individual. To score the test, a matrix is developed in which each column represents a role figure and each row an idea or concept. By comparing the patterns of responses from one row to another, it is possible to determine the simplicity or complexity of the pattern that emerges. If the rows have identical or highly similar patterns, the person is said to have cognitive simplicity. Thus,
cognitive complexity is measured on the Rep Test simply by the number of different constructs that a subject uses.7

One of the most commonly used variations of the Rep Test was developed by Bieri. In this variation, ten role types are identified, and the experimenter provides constructs for the subjects' use in rating each role type. The scores from this variation are obtained by comparing the ratings given an individual on a particular construct with the ratings given that same individual on other constructs. The higher the occurrence of identical ratings, the more simple the level of cognitive complexity.8

Kelly believed in the subjects' use of his or her own constructs, while Bieri preferred constructs that were provided for the subject. In a study designed to determine the comparability of cognitive complexity scores derived from the subject's own constructs and provided constructs, it was found that the distribution of scores were not significantly different.9

Tripodi and Bieri developed a modification of the Rep Test in which each subject is given a card with twelve numbered spaces and asked to name individuals which they know that fit the specific order of: four persons liked


8Ibid., p. 107.

most, four persons felt neutral about, and four persons disliked most. Each of the twelve persons' initials are entered on a grid in counterbalanced order of blocks of four liked, neutral, and disliked persons. The order within the blocks is randomized. The subject then rates all twelve persons on each of ten provided construct dimensions, using a six-point scale of +3 to -3 excluding 0. The cognitive complexity scores are obtained by comparing the judgments in each row with those of the same person in all rows. Each time a role figure is given an identical rating on the two constructs being compared, the subject receives a score of +, dissimilar ratings are scored as 0. Again, the higher the score, the less the cognitive complexity. 10

Another means of measuring cognitive complexity is the Role Category Questionnaire which was developed by Crockett. In one version of this measure, the subject describes in writing two peers, one whom the subject likes and one that he dislikes. The total number of constructs that a subject produces in the two descriptions is taken as the measure of cognitive complexity. 11 For use with


this measurement technique, Crockett compiled a scoring system for the actual counting of the constructs. In this "scoring manual," exact specifications are given for construct identification.\footnote{Walter H. Crockett, Allan N. Press, Jesse Delia, and Charles T. Kenny, "Structural Analysis Of The Organization Of Written Impressions," University of Kansas, 1974 (Mimeographed.)} An expanded measure of this questionnaire has the subject describe individuals known to him or her that fit eight categories that are generated, requiring half of the individuals to be older than the subject and half to be his peers, half to be people that he likes and half to be disliked, half to be male and half female. The measure of cognitive complexity is, again, the number of different constructs the subject uses in the eight descriptions.\footnote{Bert Meltzer, Walter H. Crockett, and Paul S. Rosenkrantz, "Cognitive Complexity, Value Congruity, And The Integration Of Potentially Incompatible Information In Impressions of Others," Journal of Personality and Social Psychology 4 (1966): 340.}

Mayo and Crockett used a variation of the Role Category Questionnaire to compare and contrast the habits, beliefs, and mannerisms of eight individuals. The subject was given three minutes to describe each person's habits, beliefs, ways of treating others, mannerisms, and similar attributes so that a stranger could determine the type of person the individual was. Two measures of cognitive complexity were obtained from the descriptions: (a) the number of different interpersonal constructs used, and
(b) the total number of concepts that the subject used, including repeated use of the same concept. In variations of this measure, subjects high and low in cognitive complexity are selected relative to the distribution of their sex and not to the total distribution of cognitive complexity. ¹⁴

Delia, when allowing two subjects to meet and be left alone for ten minutes, used a means of measurement of cognitive complexity by which the differentiation of a subject's written impression was scored by counting the total number of constructs used and then dividing these constructs into five categories: (1) physical description, (2) role constructs including name, age, and sex, (3) descriptions of the other's general behavior or specific actions in the interaction, (4) reports of specific or general beliefs and attitudes expressed by the other person, and (5) abstract dispositional and personality constructs. Both the number and proportion of constructs in each of the five categories were used as measures. ¹⁵

Infinite possibilities exist as to the variations possible in the measure of cognitive complexity. Sypher,


a new researcher in the field, has suggested that perhaps "different aspects of interpersonal functioning are related to different measures of cognitive complexity." Sypher and O'Keefe, in a critical review of the various measures of cognitive complexity, expressed a preference for the Crockett Role Category Questionnaire over other existing measures. They found that in all respects, Crockett's measure was "at least as good as and usually superior to, the other complexity measures." Vannoy expressed the belief that cognitive complexity consists of several independent conceptual dispositions, thus no single principle can account for a proper measure of complexity-simplicity.

Structure of Cognitive Complexity

As the more cognitively complex individual has a greater number of alternative dimensions available for judging the behavior of others than does the less cognitively complex individual, it is assumed that this more complex individual has greater structure in his or her system for

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This view is supported in a number of studies, one of which stated that

Cognitively complex subjects form interpersonal impressions which (a) are more extensive or differentiated, (b) better represent and integrate evaluative inconsistency and behavioral variability in others, (c) are more organized around motivational attributions, and (d) are characterized by greater evaluative stability.

Bieri related that "the manner in which an individual structures and cognizes one realm of events bears some relationship as to how he structures another realm of events." An individual may be prone to act in a consistent manner; however, an individual's constructs are continually subject to revision and replacement.

A system of constructs that differentiate highly among persons is considered to be cognitively complex, while a system that provides poor differentiation among persons is considered to be cognitively simple in structure. The more complex one's system of constructs, the more advanced should be his performance in social perception tasks. Evidence has shown that more complex persons


(a) form interpersonal impressions which are more differentiated and which organize potentially contradictory information in more advanced ways, (b) are less dependent upon simplifying social schemes in construing social structures, and (c) demonstrate greater cognitive flexibility.\textsuperscript{23}

Little has suggested that individual differences can be constructed on the premise that each person specializes in different aspects of the environment. Therefore, one's cognitive structure will be extended into a highly complex system only within the domains of this specialization. This, he speculated, is why women who are considered to be more concerned with interpersonal relations in our culture have consistently been shown to be more cognitively complex than males in the interpersonal domain.\textsuperscript{24} While males have been found to score higher on measures of complexity based on structural relations between constructs, females showed a tendency for higher scores on measures involving verbal differentiation.\textsuperscript{25}

Crockett argued that an individual's degree of cognitive complexity is a function of his or her experiences with social objects. As an individual comes to


\textsuperscript{25}Ibid.
have wider and more varied experiences, he or she is able to make finer distinctions between them, and thus increases the ability to represent these objects in more precise and complex ways. In addition, more complex subjects approach the interpersonal situation with a more differentiated, more fully articulated set of personal constructs than do noncomplex individuals . . . and are less likely to expect that another person will be cut from a single pattern.

Development in Cognitive Complexity

Rosenbach, when discussing the development of cognitive complexity in the individual, stated (a) that the number of interpersonal constructs an individual uses in his impressions will increase with age and (b) that increasingly complex patterns of relationships among constructs will characterize the impressions of more mature perceivers.

Developmental changes have been found to occur in (a) a shift from concrete to abstract modes of conceptualization, (b) an increased ability to consider the actions of other people independently of their effects upon the perceiver himself, and (c) an increased awareness of the difference between another person's behavior or appearance and his underlying dispositional qualities.


27 Ibid.


29 Ibid.
A number of studies have been conducted dealing with various aspects of the development of cognitive complexity. One such investigation found that, regardless of age, emotional involvement tends to lead to decreased differentiation and integration of impression.30 Also, it has been discovered that a direct relationship exists between age and the number of interpersonal constructs that children use in describing peers.31 Ego involvement with the other person involved has been shown to prevent an attitude of "detachment and unbias" in the subject.32 Ritter related that an "examination of the cognitive constructs supplied by adolescents indicated a marked propensity to view the other by reference to the self."33 Crockett determined that as an individual has a wider range of experience with social objects, he or she develops a greater number of dimensions from which to make greater discriminations among others.34 Too, it was noted that as the child grows older, the interpersonal constructs become more numerous, more abstract, and less egocentric.35

30Ibid., p. 120.
31Ibid., p. 121.
32Ibid., p. 129.
34Delia, "Attitude Toward the Disclosure," p. 120.
35Ibid., p. 120.
Press, Scarlett, and Crockett found that with an increase in age, there was an increase in the organization of children's descriptions of themselves and their peers. Also with development, a perceiver is able to recognize inconsistency in other people and account for it with an underlying set of processes.

Signell discovered that in the development of person perception, a child acquired greater complexity through his or her average concepts rather than with the acquisition of a more complex array of concepts. In contrast, however, to person perception, in the development of nation perception, a child acquired complexity not through this more efficient single concept but through the accumulation of an array of concepts that better differentiated objects. The individual's interpersonal construct system has been found to become relatively stable as an integral system as early as age eight.

One advantage of increasing cognitive complexity that has been found to be true for an adult, as well as for a child, is that of greater flexibility in shifting from

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37 Ibid., p. 307.
one orientation to another.\textsuperscript{40} Children's social perceptions have been shown to become less concrete and more abstract and stable across time as they become progressively more differentiated and integrated, thus giving base for more effective adaption.\textsuperscript{41} Alvy's work in the field suggested that with increasing age, children are more effective at adapting communication to listeners with varying psychological characteristics.\textsuperscript{42} Various studies have revealed that significant developmental advances occur for complex children between the ages of eight and ten; however, non-complex children do not make a significant advance until between the ages of ten and twelve.\textsuperscript{43} Cognitively complex children consistently outperformed noncomplex children of the same age. It was noted that when a general age-related development was observed, the cognitively complex children made the advances about two years earlier than did the noncomplex children.\textsuperscript{44} Also, those children and young adults that were cognitively complex exhibited more persuasive ability than did the noncomplex children.\textsuperscript{45}

\textsuperscript{40}Ibid., p. 202.


\textsuperscript{42}Ibid., p. 329.

\textsuperscript{43}Ibid., p. 338.

\textsuperscript{44}Ibid., p. 343.

\textsuperscript{45}Ibid., p. 344.
In considering this persuasive ability, O'Keefe and Delia have found that through the development of a highly differentiated construct system, an individual has "multiple bases for adaption of messages to the target's perspective, hence a high correlation between cognitive complexity and the number of arguments, appeals, and adaptations." 46 Delia, Kline, and Burleson wrote that the "quality of persuasive strategies was demonstrated to be strongly related to development in differentiation in early childhood and adolescence." 47 Delia has also reported that children use a higher level of persuasive strategies when speaking with a stranger than is shown with a parent. 48 He attributed this difference in strategies used to the element of prediction the child has when dealing with a parent and lacks when dealing with a stranger. Hale, in a recent study, found that the messages of cognitively complex individuals were more effective than were those of more cognitively simple individuals. 49


48 Ibid., p. 256.

From the various studies of the development of cognitive complexity in children, an analysis has been formed that presents a definite developmental course in five progressive stages. The first stage is that of the child not perceiving relevant characteristics because of the inadequate development of his or her social perception skills. This initial stage is followed by a period in which the child perceives the characteristics but does not understand their relevance. Thus comes a time when the child understands the relevance of the characteristics but because the communication code is not controlled by the child, he or she predicts failure when the communication task is perceived as difficult. Following the period of prediction, there appears the emergence of strategy development in which the child alters and adapts the communication to fit the occasion. This strategy development is achieved by such means as changes in tone of voice, including more differential phrases, etc. The final stage in the progression occurs when the strategies are differentiated and refined to a control of the communication code and the child begins to adapt to specific beliefs, attitudes, and qualities.

Vacc and Greenleaf supported the concept that cognitive complexity changes developmentally and added that

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with time, a child's system of constructs becomes more differentiated, i.e., more cognitively complex. Therefore, development is accompanied by more differentiated social perceptions as demonstrated by the level of complexity at each grade/age level.\(^5\)

O'Keefe and Delia have related that as the individual advances developmentally and increases in level of cognitive complexity, more abstract and comprehensive constructs are used.\(^5\)

**Variables Linked With Cognitive Complexity**

**Intelligence and cognitive complexity.** Research has suggested that cognitive complexity is relatively independent of intelligence.\(^5\) Bieri and Blacker found in their study using inkblots that although intelligence correlated significantly with the measures of complexity in regard to the inkblots, it appeared to play no role in producing the generality of cognitive complexity that was found.\(^5\) Delia related only minimum correlations between cognitive complexity in the interpersonal domain

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\(^5\)Goldstein, *Cognitive Style*, p. 129.

and general intelligence as well as intellectual achievements. 55

**Perception-Prediction and Cognitive Complexity.**

Perception and prediction are so linked in this case because of the fine line of differentiation between the two in the study of cognitive complexity. How the subject perceives the matter determines to what extent he is able to make a prediction. Kelly, in his notion of individual construct systems, explained the individual's behavior in perceiving and responding to the environment. In this, he implied two things about the role of perception in behavior: (a) perception is an active process involving the transformation of an idea into a concept consistent with the prior learning and experience of the individual, and (b) this concept is structured differently between individuals; therefore, an understanding of these differences is used in predicting the behavior of the individual. 56 Bieri contended that an individual perceives another accurately to the extent that his or her predictions of the other's behavior are accurate. 57 Kelly, as noted in another article, believed that man, like a scientist, attempts to understand and order the world in such a manner that events can be anticipated and, by so

doing, control exerted over them. He further indicated that man accomplishes this goal of prediction by employing a system of constructs that function as a perceptual framework. 58

In one analysis of perception-prediction and cognitive complexity, Kelly found that an individual with a more highly differentiated construct system is able to predict events more accurately. 59 Bieri has determined that the more cognitively simple a person is, the more likely he is to predict that others would do as he does. 60 Yet another study related that the more cognitively complex the individual, the more he or she can differentiate, and the more confident he or she will feel in regard to final judgments. 61

A wide range of studies have been conducted in the area of perception as related to cognitive complexity. In one such study regarding theatrical information processing, it was found that highly complex subjects typically have a wider potential response range than

59 Goldstein, Cognitive Style, p. 118.
60 Ibid.
those low in complexity.\textsuperscript{62} The magnitude of the relationship of cognitive complexity in product categories has been discovered to be somewhat smaller than that for interpersonal relations.\textsuperscript{63} Durand, in a study involving retail products, wrote that "the higher the level of complexity, the greater the variation or dispersion of affect ratings and the lower the mean affect rating across makes and brands."\textsuperscript{64} Current research has been conducted that demonstrates that sex-role attitudes and cognitive complexity have an influence upon gender-dominant career choices.\textsuperscript{65} Bodden suggested that

the complex subject, since he is able to make more and finer discriminations among occupations, is better able to identify an occupational environment suited to his personality-coping style than is a less complex subject.\textsuperscript{66}

This concept was replicated in a later study with the additional finding that cognitive complexity, in its relationship to the making of the appropriate vocational choice,

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operates independently of personality style. Bodden and James, in another study, related that "occupational information giving results in a reduction of cognitive complexity or differentiation in the vocational realm." Several studies have been conducted examining the individual's focus of talk in an informal conversation. Delia, Clark, and Switzer reported that complex interactants are more likely than noncomplex interactants to cognitively organize informal social encounters in terms of person-relevant, rather than event-relevant, thing-relevant, etc. Delia stated that communicators high in construct differentiation and abstractness tend or organize their messages around an implicit intent to deal with feelings, while those with less differentiation and abstract systems tend strongly to organize their messages around an intent to control the other's institutionally inappropriate behavior.

Schneier has indicated that the cognitively complex individual, in perceiving his or her social world,


"prefers the internal motivational aspects of others when forming impressions and cognitively simple persons prefer external surface behaviors."\textsuperscript{71} Other research has presented the theory that the level of cognitive complexity of an individual is related to degree of dogmatism and the individual's functioning in relation to repression-sensitization.\textsuperscript{72}

Contradictory stimuli and cognitive complexity. The factor of contradictory stimuli is a frequent area of study in the field of cognitive complexity. Crockett has presented the concept that subjects high in cognitive complexity are better able than those low in cognitive complexity to accommodate the presence of both positive and negative attributes in their impressions of another person.\textsuperscript{73} Nidorf revealed that subjects high in cognitive complexity are better able than those low in cognitive complexity to assimilate information opposite in content into a unified impression.\textsuperscript{74}

\begin{itemize}
\item \textsuperscript{74}Ibid., p. 397.
\end{itemize}
from inconsistent information about strangers have repeatedly shown that subjects with more cognitive complexity form impressions that are more differentiated and more likely to account for inconsistent behavior in other persons than do those persons low in cognitive complexity. Likewise, a subject high in cognitive complexity is more likely than one low in cognitive complexity to expect the presence of both positive and negative traits in others and to give multiple meanings to a construct, also interpreting the same construct differently in different contexts. Persons with a high degree of cognitive complexity even appear to look for qualities in other persons that help them to account for the inconsistencies in the other person's behavior, while persons with a low degree of cognitive complexity do not even make the attempt.

Another finding has been that individuals who retain both positive and negative qualities in their impressions are better at forming concepts in other judgment situations than those subjects that form

impressions which retain only one quality. Mayo and Crockett found that persons low in complexity formed a single impression by changing their initial judgment in the direction of the contradictory information, while subjects high in complexity retained both types of information in their final judgment. Also, studies have shown that when the other person has a social background and values similar to the subject's own, persons high in complexity are consistently more likely than those low in complexity to integrate both favorable and unfavorable qualities into a unified impression. Other findings have confirmed the idea that a more cognitively complex individual with a greater tendency toward processing multidimensional comprehension will seek more information before forming impressions than will a less complex person. According to Leonard, the cognitively complex individual is more likely than the cognitively simple


79 Abelson, *Theories of Cognitive Consistency*, p. 635.


individual to perceive and evaluate similarity-dissimilarity in others. 82

Conflict and cognitive complexity. Conflict in cognitive complexity refers to those elements that are incompatible either within the stimulus situation or between the stimulus and the subject. An analysis of studies has shown that individuals have several choices in handling conflicting elements, depending upon the existing cognitive structure. These choices are to (a) reject the stimulus immediately and preserve the cognitive structure, (b) accept the stimulus and change the appropriate cognitive structure, or (c) modify the stimuli so as to blend with the cognitive structure. 83

One study examined the handling of conflicting stimuli where the stimuli were created in three varying degrees of intensity. The results of the study revealed that in a majority of cases, the subjects attempted to resolve the conflict; however, the strength of the conflict was directly related to the difficulty in reaching a resolution and thus directly related to the intensity strength of the stimuli. 84


84 Ibid., p. 307.
A number of studies have shown that when subjects are presented with conflicting information about an unknown individual, the cognitively noncomplex subjects are more likely than are the cognitively complex ones to totally reject one side of the information and form an impression where the conflicting information is totally ignored. The complex subjects, however, can infer these varying qualities into a satisfying impression.\(^85\)

Delia, in a study involving dialect and vocal qualities, found that cognitively complex subjects listen to the vocal qualities of individuals in more complex ways and, therefore, receive more information regarding the individual's dispositional qualities. However, an indication was revealed that when a stereotype of an individual is possible, the complex subjects are just as likely as the noncomplex subjects to use it as a shortcut, and thus achieve a circumvention of impression formation.\(^86\)

Crockett has discovered that in the area of conflict, subjects with a high degree of complexity will tend to rationalize conflict, thereby reducing dissonance. Subjects low in complexity, on the other hand, will either delete or totally ignore the conflicting information.\(^87\)

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\(^86\) Ibid., p. 297.

In another study, Crockett found that a person with a highly differentiated construct system is able to go beyond the information that is obvious and directly available for consideration and proceed to infer the presence of unobserved but yet related and pertinent attributes. This consideration leads directly to the positive relationship that exists between cognitive complexity and the integration of potentially incompatible information in the process of information formation. 88

Several studies in the area of conflict in cognitive complexity have indicated that the values and value judgments of the subject play a large part in information formation. Research has shown that when values attributed to the stimuli are incongruent to those values held by the subject, the subject exhibits emotional rejection, and thus, a negative impression results. 89 Meltzer, Crockett, Rosenkrantz, and Delia have all found that value incongruence eliminates the effect of cognitive complexity upon the level of organization of impression formation. Only when the other person holds values similar to the subject's own do the usual complexity effects hold true. 90

In studies conducted to investigate whether an individual differentiates more among persons with negative affect than positive affect, the results indicated a

89 Ibid.
significantly stronger differentiation among those negative stimulus persons than among the positive stimulus persons. This finding is thought to be based upon the concept that a person will much more closely consider and evaluate that which is a threat to him. 91 The point has been made in several studies that females tend to differentiate more than males in regard to this negative affect. 92 Hogan found that although both sexes are more complex with the disliked person than with the liked person, females give the more extreme and favorable responses. 93 In related studies, Kelly has suggested that there is a definite need to gain greater predictability and understanding of persons who evoke anxiety responses. 94 Miller and Bieri related that when confronted with a relatively disliked or alien person, the subject assumes a greater differentiation, and thus an adaptive means in terms of anticipating a possibly more threatening person. 95 Wilkins wrote that an individual "differentiates more finely among negative, anxiety evoking stimulus persons in order to


92 Ibid., p. 447.


gain greater understanding and predictability concerning such potentially dangerous individuals." Sappenfield and Fisher suggested that perhaps this tendency of differentiation is not because of danger or threat, but rather a reaction to a favorable bias. Koenig and Seaman found that both the feeling of threat and the need for justification are related to the tendency of individuals to perceive negative persons more complexly than positive persons. Generally, three main explanations for this positive-negative affect have been proposed. First, the vigilance theory states that individuals have a need to differentiate highly between disliked figures as they are a possible source of threat. Secondly, the justification theory is based on the adage that people differentiate in such manner because they feel a need to justify their dislike. And thirdly, the Pollyanna theory holds that positive persons are seen in an entirely


positive way, while negative persons are perceived in a totally negative manner. 99

Order of presentation and cognitive complexity. Anderson, in a study focused upon the presentation of information to an individual, discovered that subjects have a greater effect toward the first communication presented. Females revealed this tendency more than males in instances in which the change was abrupt; however, little sex difference was shown when the change was gradual. Too, the time interval involved between the presentations was of no effect. 100

School size and cognitive complexity. Wicker, in an examination of school size, found that students in small schools have a significantly higher degree of cognitive complexity than do students in large schools. These results confirmed previous findings that small school students enter a wider range of behavior settings and have more responsible positions in these settings than do students of large schools. 101

99 Peter H. Burgoyne and Janet Pietrushka, "Generality of Complexity of Differentiation and Effect of Construct Type, Figure Attractiveness, and Familiarity," Perceptual and Motor Skills 48 (1979): 509.


Leadership style and cognitive complexity. Several studies have been discovered to correlate the degree of cognitive complexity with leadership style. These studies have been based upon how the leader views his or her least preferred co-worker (LPC). Leadership style in this instance has been defined as "the underlying need structure of the individual which motivates his behavior in various leadership situations." Mitchell found that individuals having a high score for the least preferred co-worker also reveal a degree of cognitive complexity. Hill, another researcher in this area, has indicated that different cognitive styles can account for the existence of differences in characteristics of high and low LPC leaders.

Cognitive Complexity and Urban-Rural Factors

The foregoing review of literature of cognitive complexity shows what a wide and varied range of factors can influence an individual's construct system and what a significant role the variables of environment and social interaction apparently play in this system. Therefore, with a background as to what is involved in the concept of

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cognitive complexity, one can turn to an examination of the realm of urban-rural locality and explore the possibilities of correlation indicated between the two variables.

**Distinction of urban-rural locality.** Various authors have categorized the concept of urban-rural locality with differing limitations of resident population count. Some individuals have conceptualized rural locality as having less than one thousand persons making up the population count and urban locality consisting of a minimum population of eleven thousand persons. In this instance, those populations ranging from 1,000 to 10,999 persons, or the middle portion, are classified simply as towns.\(^{105}\) The U. S. Census Bureau, however, has characterized the urban community as having a population of 2,500 or more inhabitants and the rural community as being less than 2,500 persons.\(^{106}\) From these two instances, one can readily see that apparently the classification of a community as to whether it is urban or rural is arbitrary. The classification appears to be a matter of convenience and adherence to the purposes of the study in question. Wirth identified urban communities as being large, dense, and heterogeneous. Likewise, he classified rural

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communities as small, less dense, and homogeneous. The authors have based the distinction between the two upon a question of occupation and industry. Thereby, rural communities are basically thought of as agricultural (primary activities), while urban communities are considered more industrial (secondary and tertiary activities) in nature. Other ways in which urban and rural communities are cited to differ are in the respect of social differentiation and stratification, mobility, environment, and systems of interaction. These factors are considered to be connected or interrelated. Bealer, in an essay on the meaning of rural, cited three meanings that can be derived from the term: "(1) ecological, relating to place of residence and its associated variables; (2) occupational, denoting farming versus other occupations; and (3) sociocultural, using attitudes and behaviors in rural and urban cultures."

Differences in urban-rural locality. Various studies have shown substantial support for the concept of differences in individual behaviors, attitudes, beliefs, etc., as a result of the individuals having an urban or rural background. Schnore has suggested that the

107 Ibid.
108 Ibid., p. 132.
109 Ibid., p. 133.
urban-rural impact on individual differences may be affected by age, sex, socioeconomic status, religion, and ethnicity. The statement has been made that "cultural differences related to the rural-urban dimension are distributed throughout the cultural complex, affecting all spheres of life." Nelson and Yokley found that "rural residents were most conservative and that liberal attitudes are increasingly evident among the residents of town, small city, suburb, and large city in the order given." Schnore has also stated that the place of residence, urban or rural, is a vital variable when regarded from the standpoint of one's place of origin. A very wide range of individual behavior can be predicted with reference to either (a) the type of community in which the person now resides, or (b) the type of community in which he was born and reared.

Miller and Crader discovered that place of residence, urban or rural, affects an individual's level of interpersonal satisfaction. The level of interpersonal satisfaction was found to be highest for rural residents and lowest for urban residents, while the level of economic satisfaction was greater for urban residents, and rating

111 Ibid., p. 374.
112 Ibid., p. 375.
113 Ibid., p. 381.
lowest for rural residents. Wirth predicted that as one moves from rural to urban, a decline can be noted in the importance of kinship, neighborhood, and informal relationships in general. The urban resident has generally been stereotyped as living at a faster pace, having fewer interpersonal contacts thereby being somewhat isolated, and having a higher degree of fear and suspicion. On the other hand, the rural resident has often been stereotyped as being more open and friendly, having more interpersonal contacts, and living a more relaxed way of life. These stereotypic ideas have, in some studies, been supported, while in others the results have produced the exact opposite effect. Miller confirmed what has been generally accepted, that the urban setting has opportunity structures such as economic and cultural structures that are nonexistent or at least viable in the rural area.

Relation of urban-rural locality to helping behavior.

One of the most popular topics explored in relation to urban-rural locality is that of helping behavior. The media have highly publicized the occurrence of attack and murder in the urban area while the local residents looked on, not helping or calling for assistance. The rural

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116 Ibid., p. 491.

117 Ibid., p. 492.
resident, however, has often been presented as the "helpful neighbor," the quick to render aid, and the provider and protector. These notions, however, lack empirical support, since helping behavior research has produced contradictory results. Lesk and Zippel conducted a study of dependency, threat, and helping behavior in which the data for the urban area matched that of the rural area, showing no significant difference either way.\textsuperscript{118} Merrens found that rural residents are more apt to provide assistance than are persons residing in metropolitan areas.\textsuperscript{119} Korte and Keer stated that "interaction between strangers is less civil, helpful, and cooperative in an urban environment than in a nonurban environment."\textsuperscript{120} Schneider and Mockus reported that in their study a slightly higher percentage of urban subjects rendered assistance than did rural subjects; however, the difference was not such as to be considered significant.\textsuperscript{121}

\textsuperscript{118}Steven Lesk and Bert Zippel, "Dependency, Threat, and Helping in a Large City," \textit{The Journal of Social Psychology} 95 (1975): 185.


\textsuperscript{121}Frank W. Schneider and Zig Mockus, "Failure to Find a Rural-Urban Difference in Evidence of Altruistic Behavior," \textit{Psychological Reports} 35 (1974): 294.
Two studies have been conducted which deal with environmental complexity and cognitive complexity in regard to helping behavior. The findings indicated that persons from an urban background tend to be more responsive toward lending assistance than persons from a rural background. This response was attributed to an "adaptation response to environmental complexity." The concept of environmental complexity was derived from Milgram's theory of urban overload. This theory states that increasing environmental complexity (urbanization) will at some point overwhelm an individual's capacity to process effectively the inputs and demands of the environment. Therefore, he or she will develop a series of adaptive, economizing responses in order to be able to cope with the excessive demands of the environment. These responses are believed to negatively affect the quality of social interaction in a city and, thus, interfere with the cognitive functioning, social norms, and role performance of the individual. Weiner conducted a fascinating study which discovered that rural residents provided significantly less helping behavior than did urban residents. A further finding of the study was that the trait of cognitive complexity appeared to be a critical determinant

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123 Ibid., p. 100.
of the subject's reactions. These results were attributed to "differences in social-perceptual learning as a function of the complexity of stimuli afforded by background experiences." Weiner stated that a significant relationship was determined between the cognitive complexity measure and both dependent measures of helping behavior.

Further results indicated that place of residence was affected by cognitive complexity as a factor influencing group helping responses. Also, it was found that the rural residents demonstrated significantly less cognitive complexity than did the urban residents. These studies have served to strengthen the theory of Barron's that "social cognition of cognitive complexity may be acquired by early experiences in environmental mastery and exposure to complex developmental stimuli." According to Vannoy, individuals low in cognitive complexity have been found to be high in social distance perceptions. Weiner determined that when faced with multiple demands, the more cognitively complex urban residents have at their disposal a broader range of options to use in processing information from the social


125 Ibid., p. 119.

126 Ibid., p. 120.

127 Ibid., p. 121.
environment than do persons with less complexity. Therefore, the urban residents have a more diversified and more refined choice as to whether or not to help.128

Relation of urban-rural locality to school size.
Several theorists have examined the aspect of school size and its influence upon the individual. It has generally been found that students that attend small high schools (a) enter more different kinds of activities, (b) hold more positions of responsibility in activities entered, (c) use more dimensions or constructs to describe school activities, (d) experience more satisfaction relating to being challenged, engaging in important actions, to being involved in group activities and to achieving moral and cultural values, (e) report more internal and external pressures to attend and participate, including feelings of obligation to support the activities.129

Wicker confirmed his earlier findings that small school students tend to enter a wider range of behavior settings and have more responsible positions in these settings than do students of large schools.130 He further stated that "the more kinds of behavior settings a student enters, and the more performances he has, the higher will be his cognitive complexity."131

128 Ibid., p. 122.
131 Ibid., p. 203.
Additional considerations of urban-rural locality.

In a study of urban and rural locality, one confronts such terminology as "territorial cognition" and "sense of community." Territorial cognition deals with the individual's perception of control over his or her primary, secondary, and public territories. Primary territories are those private places where the owner has exclusive rights, while secondary territories are semipublic places, and public territories are spaces open to almost anyone. In general, rural residents have been found to perceive more control, see more acquaintances, and feel more comfortable in all territories than urban residents. Specifically, urban residents are concerned with issues of privacy, while rural residents are involved with social concerns. The concept of sense of community describes patterns of relationships and quality of life in urban neighborhoods. This sense of community refers to the adage that a person feels a sense of belonging and an identity with his or her neighborhood and does not experience continued feelings of loneliness. Sense of community is considered to be


133 Ibid., p. 421.

134 Ibid.

fostered by opportunities to participate and to communicate with others. A similar theory is Warren's contention that "the perceived lack of extra-neighborhood communicative opportunities contributes to the 'structural isolation' of black, urban, and ghetto residents and to feelings of powerlessness."

The questions of similarity and compatibility occur often in studies of both cognitive complexity and urban-rural locality. Both social and behavioral scientists have found that an individual's success in coping with the social environment is largely determined by the degree to which that person is able to develop a sufficiently differentiated cognitive representation of the environment.

Cognitive compatibility has been used to define an individual's ability to accurately perceive and communicate within the realm of the cognitive dimensions used by another individual. Triandis has indicated that the effectiveness of a communication is related to the cognitive similarity of the members. Others, such as Newcomb and Homans, have also found that although a minimum of

136 Ibid.


138 Ibid.

communication can take place even when the communication similarity is very low, the higher the communication or attribute similarity, the greater the communication effectiveness. 140

Rationale and Research Questions

Interpersonal communication is a vital and intricate element in each person's daily life. Interpersonal contacts occur continually in planned as well as unplanned situations and cannot be totally avoided. Individuals can, however, react to these experiences in varying manners and conduct themselves accordingly. Thus, individual differences in the communication process are of extreme interest to the researcher of communication.

The concept of cognitive complexity has been linked to the interpersonal communication process. An individual develops a simple or complex construct system based upon his or her personal experiences and social interactions. This system determines how the individual perceives and evaluates stimuli. The structure of the individual construct system allows for increased or limited differentiation, adaptation, and flexibility. Cognitive complexity-simplicity has been shown to have many mediating effects upon the individual and his or her communication process. Such areas as prediction ability,

140Ibid., p. 182.
focus of talk, handling of conflicting elements, occupational choice, and leadership style have been linked with degree of cognitive complexity.

Although the factor of urban-rural locality has not been directly linked with the degree of cognitive complexity, both variables have been shown to affect the helping behavior of an individual. Urban-rural locality may then be an intervening element of interpersonal communication. The rural resident is generally considered to be friendly, helpful, and actively involved in many interpersonal communication experiences. The urban resident is known to have a higher degree of fear and suspicion, fewer interpersonal contacts, and some degree of isolation. Urban-rural locality has been linked with such factors as attitude, interpersonal satisfaction, religious participation, organizational affiliation, and occupational choice.

The concept of communication apprehension has not been linked with an individual's degree of cognitive complexity-simplicity; however, it has been shown to be influenced by the variable of urban-rural locality. Since communication apprehension is known to be linked with interpersonal communication, the possibility of intervening variables is strengthened. Communication apprehension has been defined as "an individual's level of fear or anxiety associated with either real or
anticipated communication with another person or persons." 141 Communication apprehension is considered to be a personality-type trait that is relatively permanent in an individual. 142 Jenson wrote that the "kinds of social experiences which an individual encounters may have a direct effect on his confidence as a public speaker." 143 He also related that "it may be that the differences between the confident and anxious speaker result from their perceptions of their previous experience." 144 College students from rural areas have been shown to have significantly higher levels of communication apprehension than students from urban areas. 145 McCroskey found that "the difference between rural and urban environments is significant from the junior high level on, and not significant before that age level." 146 Since the variable of communication apprehension has been linked with the factors of social experience,


144 Ibid.


146 Ibid., p. 216.
perception, and urban-rural locality, and these factors have been shown to interact with cognitive complexity, the researcher felt it wise to explore the possibility of a relationship existing between cognitive complexity-simplicity and communication apprehension.

As the degree of cognitive complexity is the basis employed by an individual in perception and evaluation, another mediating factor may possibly be that of a person’s fundamental belief system. When considering the concept of world view, it appears that the possibilities of perception may be superimposed and thus reveal another intervening factor in the cognitive complexity process.

World view has been defined as the belief system shared by group members about the nature of the universe and its effect on one’s environment. World view is the fundamental perception (even more fundamental than values and undergirding values) about the way the world operates.147

Sarbaugh, in his work on world view, listed three categories of beliefs: the nature of life, the purpose of life, and the relationship of man to the cosmos which encompasses the beliefs about the origin, purpose, and future of man.148 Garmon found that communication


apprehension was significant in determining world view in conjunction with religious participation and sex. \textsuperscript{149}

This linkage of world view with communication apprehension serves to further strengthen the possibility of the existence of additional variables significant to the study of interpersonal communication and its relationship to cognitive complexity.

The purpose of this study is to examine the possibility of a significant relationship between cognitive complexity and the variables of urban-rural locality, communication apprehension, and world view. Since there is a possible link between cognitive complexity and each listed variable, the possibility exists of interacting relationships among the variables. While investigating such a theory of interpersonal communication, it is vital to consider all pertinent factors. When attempting to determine the antecedents to cognitive complexity-simplicity, a thorough investigation is necessary.

The above discussion seems to justify posing the following research questions:

1. What is the relationship between an individual's degree of cognitive complexity-simplicity and his or her urban-rural locality?

An individual's degree of cognitive complexity-simplicity is known to be based upon his or her past experiences and social interactions. Since the factors of urban-rural locality serve to provide as well as limit the possible realm of the individual's experiences and interactions, this phenomenon in turn can possibly explain a more simple or complex construct system. Urban-rural locality has been linked with such variables as attitude, interpersonal satisfaction, religious participation, and organizational affiliations, showing the influence of urban-rural locality on the exposure of the individual to varying experiences and interactions.

2. What is the relationship between an individual's degree of cognitive complexity-simplicity and his or her level of communication apprehension?

An individual is said to have a relatively complex or a relatively simple construct system. These descriptions refer to the number of elements a person has available for perceiving and evaluating stimuli. Communication apprehension can possibly be linked with cognitive complexity as an individual with many constructs may simply feel no need to speak and therefore may experience anxiety in regard to involvement in a communication process.

3. What is the relationship between an individual's degree of cognitive complexity-simplicity and the world view of the individual?
World view is an individual's fundamental perception about the way the world operates. Cognitive complexity is considered to be the relative number of concepts a person uses in perception. The possibility of a link between these two variables exists because often perceptions themselves are linked. Cognitive complexity-simplicity directly relates to how the individual perceives stimuli, while world view also is the perception of such stimuli, evoking the question of whether a simple construct system signifies a limited world view. Because world view is perceptual, as is cognitive complexity-simplicity, a mediating effect may occur between variables, revealing many antecedents to cognitive complexity.

4. What is the relationship among the four variables of cognitive complexity-simplicity, urban-rural locality, communication apprehension, and world view?

All four variables as listed above play a vital role in the communication habits and skills of an individual. There exists the possibility of an interrelationship among variables when considering the overlapping of effects.
Chapter II

METHODOLOGY

Subjects

The subjects in this study were 115 undergraduate college students currently attending Western Kentucky University, Bowling Green, Kentucky. These students were at varying levels in their individual degree programs and were enrolled in beginning speech communication classes at the university. Each subject was analyzed for degree of cognitive complexity—simplicity, level of communication apprehension, world view, and various demographic and group data with emphasis placed upon background locality, religion, size of high school class, and organizational affiliations.

Procedures

A test booklet was developed and given to each subject for completion. This booklet was composed of four areas of investigation. The student was asked to respond to a version of Crockett’s Role Category Questionnaire for the measure of cognitive complexity, the short version of the Personal Report of Communication Apprehension, and a measure of world view as developed
by Dodd and Garmon in 1980. Prior to the distribution of the booklet, a brief explanation of the testing device was given so as not to reveal the variables being measured but with enough information to avoid confusion.

The subjects were surveyed during their regular class time. The test was administered by a qualified individual with previous experience in the administration of such instruments.

Measurement of Variables

Cognitive Complexity

As Chapter I indicated, a number of measurement devices were available for measuring the degree of cognitive complexity-simplicity of an individual. However, as the Crockett Role Category Questionnaire has been recognized as a reliable measure and has been considered by some to be the best measure for this variable, a version as shown in appendix A was used.\textsuperscript{150} This device was scored using the scoring manual developed by Crockett.\textsuperscript{151}

To insure rater reliability on the subjective scoring of the cognitive complexity-simplicity measure, a second scorer was trained according to the scoring manual. Twelve percent of the cases were scored by both individuals. Using a Pearson $r$ correlation, an interrater

\textsuperscript{150}O'Keefe, "Cognitive Complexity Measures."

\textsuperscript{151}Crockett, "Structural Analysis."
reliability factor of .99 was shown with significance at the .001 level. This high interrater reliability indicates that the measure used here was, indeed, a reliable measure.

Rurality-Urbanity

The variable of rurality-urbanity was measured by considering the variable of population of hometown as shown in appendix C. This variable was split at the 10,000 population category as this was indicated by the frequencies analysis, and such a break complied with the definitions of urban and rural population areas as outlined by the U.S. Census Bureau.¹⁵²

Demographics

Such variables as sex, age, occupation of head of household, size of high school graduating class, and length of time at the graduating institution were examined. These demographic classifications are shown in appendix C as they appeared on the measurement device.

Group Memberships

The consideration of group membership included the variables of social organizations, religious organizations, academic organizations, and other

organizations as shown in appendix C. Social organizations included such membership affiliations as sororities and fraternities. Religious organizations were affiliations related to the subject's church or church group. Academic organizations were those memberships associated with classes, major area of study, minor area of study, etc. The variable of other organizations included all other membership affiliations not listed above and was considered as miscellaneous organizational memberships. All variables of organization membership were rated on a scale of zero through four, indicating the number of membership affiliations for each variable.

Communication Apprehension

The measure of communication apprehension for this study was the short version of the Personal Report of Communication Apprehension as developed by McCroskey. This device was presented as it appears in appendix B, mingled with the elements used for the measure of worldview. The items were so varied in an attempt to stimulate more consideration from the subjects for each individual response. The Personal Report of Communication Apprehension has been proven to be a reliable evaluation of

153McCroskey, "Validity Of The PRCA," p. 203.
communication apprehension and has also been shown to be a very popular measure. As an additional consideration, the variables of number of children in the family and order of birth in the family were included in the measurement instrument as these items have previously shown significance with communication apprehension. These items are included in appendix C. The communication apprehension variable was divided into three sections as indicated by a frequencies analysis. A low level of communication apprehension is defined as being one or more standard deviations below the mean. A moderate level of communication apprehension is defined as scores at the mean, and a high level of communication apprehension is defined as being one or more standard deviations above the mean.

**World View**

The variable of world view was measured in accordance with the scale developed by Dodd and Garmon in 1980. This instrument measured the degree of fatalism, control by others, control by environment, and predestination of the individual. This measure, along with that of communication apprehension, has been included as appendix B. A median split, as indicated by a frequencies analysis, was conducted, thus defining low world view as those scores below the mean and high world view as those scores above the mean.

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154 Garmon, C. W., "A scale development of world view," Western Kentucky University, 1980. (Mimeographed)
Analysis

Analysis of this study was conducted using a selection of SPSS programs. The study utilized analysis of variance and multiple regression. Option 2 was used in the programming of the multiple regression as a number of cells contained missing data, especially for those variables involved with organizational membership. Option 2 specified a pairwise deletion of missing data, thus causing a case to be eliminated from calculation only for a specific variable with a missing data code. Throughout the analyses, the alpha level was set at .05.

The variables of sex, communication apprehension, world view, social organizations, religious organizations, academic organizations, other organizations, population, high school size, number of children in the family, and birth order were jointly correlated with cognitive complexity to analyze their predictive qualities. Also, a three-way analysis of variance examined the interactions of each subject's hometown population, communication apprehension, and world view as they affected cognitive complexity.
CHAPTER III

RESULTS

This chapter reveals the results of the research analysis. The first three research questions of the study asked for the simple relationships between an individual's degree of cognitive complexity-simplicity and his or her urban-rural locality, level of communication apprehension, and world view. The results have shown, however, that no such simple relationships exist in this study. Individually, the variables as presented in the research questions of the study have no significant relationship with the degree of cognitive complexity-simplicity of an individual. However, important effects of several variables occurred which will be discussed under the following categories: personal demographic relationships, group membership relationships, and cognitive complexity interaction relationships.

Personal Demographic Relationships

Of the eleven predictor variables originally included in the multiple regression, eight predictors emerged, in the step-wise regression process, explaining 10.2% of the variance (R=.32, p<.05). However, of those eight predictor variables, the three variables of number of children in the family, sex, and other group memberships explained 8.7% (table 1).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>R Square</th>
<th>RSQ Change</th>
<th>Simple R</th>
<th>Beta Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>0.19066</td>
<td>0.03635</td>
<td>0.03635</td>
<td>-0.19066</td>
<td>-0.12822</td>
</tr>
<tr>
<td>Sex</td>
<td>0.26259</td>
<td>0.06895</td>
<td>0.03260</td>
<td>0.18794</td>
<td>0.20358</td>
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<tr>
<td>Other Org.</td>
<td>0.29503</td>
<td>0.08704</td>
<td>0.01809</td>
<td>-0.12409</td>
<td>-0.20830</td>
</tr>
<tr>
<td>Birth Order</td>
<td>0.30545</td>
<td>0.09330</td>
<td>0.00626</td>
<td>-0.15965</td>
<td>-0.11033</td>
</tr>
<tr>
<td>Social Org.</td>
<td>0.31317</td>
<td>0.09807</td>
<td>0.00477</td>
<td>-0.06571</td>
<td>0.09758</td>
</tr>
<tr>
<td>Population</td>
<td>0.31909</td>
<td>0.10182</td>
<td>0.00375</td>
<td>-0.03585</td>
<td>-0.05799</td>
</tr>
<tr>
<td>World View</td>
<td>0.31990</td>
<td>0.10234</td>
<td>0.00052</td>
<td>0.00526</td>
<td>-0.02384</td>
</tr>
<tr>
<td>High School</td>
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<td>0.10250</td>
<td>0.00016</td>
<td>-0.05503</td>
<td>-0.01433</td>
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</tbody>
</table>
The other five variables contributed such little additional variance that their presence was negligible, both functionally and statistically. The sex variable, the only demographic variable, showed the second highest Beta weight of the three top predictors. Thus, sex was considered a significant predictor.

The variable of sex, in an analysis of variance, revealed a significant main effect. A significant F was found (F=4.10, p<.05), as revealed in table 2. The difference indicated that females (x̄=20.87) were significantly higher in complexity than males (x̄=18.41).

Group Membership Relationships

As previously mentioned, membership in organizations other than religious, academic, and social (called other organizations) appeared in a multiple regression and had the strongest influence in this particular regression (Beta=-.208, table 1). This finding suggests that increased cognitive complexity is associated with a low amount of group membership. The variable of other organization membership also significantly interrelated with such group affiliation membership variables as social (r=.65), academic (r=.36), and religious (r=.35), variables which themselves did not significantly impact upon the multiple regression.

155 The formula for deriving the benefit of additional variables in a multiple regression is F = \((R^2 - r^2)/(1-R^2)/(N-p-1)\), where p=number of original predictor variables, r^2=variance of reduced predictors, and R^2=multiple correlation of total predictors. Quinn McNemar, Psychological Statistics, (New York: John Wiley and Sons, Inc., 1969): 321.
**TABLE 2**

**ANALYSIS OF VARIANCE OF COGNITIVE COMPLEXITY AND SEX**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>165.320</td>
<td>1</td>
<td>165.320</td>
<td>4.101</td>
<td>0.045</td>
</tr>
<tr>
<td>Sex</td>
<td>165.320</td>
<td>1</td>
<td>165.320</td>
<td>4.101</td>
<td>0.045</td>
</tr>
<tr>
<td>Explained</td>
<td>165.320</td>
<td>1</td>
<td>165.320</td>
<td>4.101</td>
<td>0.045</td>
</tr>
<tr>
<td>Residual</td>
<td>4514.918</td>
<td>112</td>
<td>40.312</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4680.238</td>
<td>113</td>
<td>41.418</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sex mean for total population=19.88
Sex mean for males=18.41
Sex mean for females=20.87
The variable of number of children in the family also appeared as one of the stronger predictors in the multiple regression (Beta=-.128, table 1). This finding implies that the larger the number of children in the family, the lower the degree of cognitive complexity, and conversely, the smaller the number of children in the family, the higher the degree of cognitive complexity.

**Cognitive Complexity Interaction Relationships**

As indicated by the fourth research question, a relationship was hypothesized indicating the interaction of population, communication apprehension, and world view with cognitive complexity. Such a relationship was a major finding of this study. In a three-way analysis of variance, a significant F was found (F=3.76, p<.03, table 3). Table 4, in turn, shows the mean scores in this interaction effect.

**Cognitive Complexity and World View**

The first part of the above mentioned three-way interaction highlights the effects of world view and the specific conditions under which world view makes a significant difference in an individual's degree of cognitive complexity. As table 4 indicates, this study revealed two world view differences interacting with other variables. A world view difference was noted under the low communication apprehension condition, showing that individuals with low, or fatalistic world view had a significantly
<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>151.397</td>
<td>4</td>
<td>37.849</td>
<td>0.944</td>
<td>0.442</td>
</tr>
<tr>
<td>Population</td>
<td>40.157</td>
<td>1</td>
<td>40.157</td>
<td>1.001</td>
<td>0.319</td>
</tr>
<tr>
<td>World View</td>
<td>0.000</td>
<td>1</td>
<td>0.000</td>
<td>0.000</td>
<td>0.998</td>
</tr>
<tr>
<td>Comm. Apprehension</td>
<td>136.089</td>
<td>2</td>
<td>68.045</td>
<td>1.697</td>
<td>0.188</td>
</tr>
<tr>
<td>2-Way Interactions</td>
<td>143.885</td>
<td>5</td>
<td>28.777</td>
<td>0.718</td>
<td>0.612</td>
</tr>
<tr>
<td>Pop Wrl dvw</td>
<td>4.080</td>
<td>1</td>
<td>4.080</td>
<td>0.102</td>
<td>0.750</td>
</tr>
<tr>
<td>Pop Commapp</td>
<td>86.035</td>
<td>2</td>
<td>43.018</td>
<td>1.073</td>
<td>0.346</td>
</tr>
<tr>
<td>Wrl dvw Commapp</td>
<td>34.546</td>
<td>2</td>
<td>17.273</td>
<td>0.431</td>
<td>0.651</td>
</tr>
<tr>
<td>3-Way Interactions</td>
<td>301.707</td>
<td>2</td>
<td>150.854</td>
<td>3.762</td>
<td>0.026</td>
</tr>
<tr>
<td>Pop, Wrl dvw, Commapp</td>
<td>301.707</td>
<td>2</td>
<td>150.854</td>
<td>3.762</td>
<td>0.026</td>
</tr>
<tr>
<td>Explained</td>
<td>596.992</td>
<td>11</td>
<td>54.272</td>
<td>1.353</td>
<td>0.207</td>
</tr>
<tr>
<td>Residual</td>
<td>4130.137</td>
<td>103</td>
<td>40.098</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4727.129</td>
<td>114</td>
<td>41.466</td>
<td></td>
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</table>
TABLE 4
THREE-WAY INTERACTION OF COMMUNICATION APPREHENSION, WORLD VIEW, AND POPULATION WITH COGNITIVE COMPLEXITY

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Apprehension: Low</td>
<td></td>
</tr>
<tr>
<td>World View: Low</td>
<td>High</td>
</tr>
<tr>
<td>Population: Rural</td>
<td>32.00 a</td>
</tr>
<tr>
<td></td>
<td>(2) (4)</td>
</tr>
<tr>
<td>Urban</td>
<td>17.00 b</td>
</tr>
<tr>
<td></td>
<td>(9)</td>
</tr>
<tr>
<td>Communication Apprehension: Moderate</td>
<td></td>
</tr>
<tr>
<td>World View: Low</td>
<td>High</td>
</tr>
<tr>
<td>Population: Rural</td>
<td>19.43 b</td>
</tr>
<tr>
<td></td>
<td>(21)</td>
</tr>
<tr>
<td>Urban</td>
<td>19.75 b</td>
</tr>
<tr>
<td></td>
<td>(20)</td>
</tr>
<tr>
<td>Communication Apprehension: High</td>
<td></td>
</tr>
<tr>
<td>World View: Low</td>
<td>High</td>
</tr>
<tr>
<td>Population: Rural</td>
<td>19.00 b</td>
</tr>
<tr>
<td></td>
<td>(2)</td>
</tr>
<tr>
<td>Urban</td>
<td>21.00 bc</td>
</tr>
<tr>
<td></td>
<td>(6)</td>
</tr>
</tbody>
</table>

Critical Difference=5.67

Means with common subscripts are not significantly different.

Numbers in parenthesis indicate number of subjects in each category.
higher degree of cognitive complexity ($\bar{x}=32.00$) than did individuals with a high, or nonfatalistic world view ($\bar{x}=20.75$). Such a difference occurred, however, only with the rural population condition, since the urban population condition revealed no significant differences between the low and high world view conditions.

The other world view difference was found under the high communication apprehension condition. Again, the difference occurred only among the rural population subjects, however, this time the individuals with low world view were significantly lower in degree of cognitive complexity ($\bar{x}=19.00$) than were the individuals with high world view ($\bar{x}=26.00$).

**Cognitive Complexity and Population**

A significant difference is shown in table 4 for the population variable only under the condition of low communication apprehension. Those persons with a low level of communication apprehension, low world view, and from a rural population area, experienced a higher degree of cognitive complexity ($\bar{x}=32.00$) than did those persons from an urban population area with a low level of communication apprehension and a low world view ($\bar{x}=17.00$). No other population, or rurality-urbanity differences, appeared in the interaction.
In general, those persons with a low level of communication apprehension revealed a significantly higher degree of cognitive complexity than did those persons with a middle or high degree of communication apprehension. This was accomplished, however, only under the conditions of low world view and rural population area. As already noted in sections above, low communication apprehension, low world view, rural subjects revealed a high degree of cognitive complexity. By contrast, high communication apprehension, low world view, rural subjects appeared lower in complexity than their rural high world view counterparts.
CHAPTER IV

DISCUSSION AND CONCLUSIONS

Discussion

This study revealed a significant sex difference in which females were shown to have a significantly higher degree of cognitive complexity than males. The study indicated a significant multiple regression in which other organization membership, sex, and number of children in the family were chief predictors, explaining 8.7% of the variance. Perhaps the most interesting finding of the study, however, was the interaction effect of rurality-urbanity, world view, and communication apprehension on cognitive complexity.

Personal Demographic Relationships

The sex variable was shown to have a significant difference in the study. Females were found to be more cognitively complex than were males. This finding could be caused by the concept that females are more involved in interpersonal communication and interpersonal concerns than are males. Perhaps females have a finer degree of discrimination and are more perceptive in their interpersonal evaluations than are males. Too, the possibility
exists that because of the diverse area of roles occupied by females, they are more differentiated in their perceptions than are males.

Group Membership Relationships

The multiple regression revealed that the variable of number of children in the family correlated highly with the degree of cognitive complexity of an individual. This correlation was a negative correlation, meaning that the larger the number of children in the family, the lower the degree of cognitive complexity. This finding can possibly be attributed to the idea that children from larger families may receive less individual attention from parents, this attention thus being divided among siblings. Such a division of attention could definitely affect the realm of social interactions and past experiences of each child.

Other organizational membership, as the third predictor in the multiple regression, had a significant negative correlation. This correlation indicated that the fewer "other" organizations with which a person is affiliated, the higher the individual's degree of cognitive complexity. This finding can be attributed to a person's accepting the beliefs, manners, habits, etc. of the member organization and not utilizing and fostering his or her individuality. Evidently, "other" group membership acts as a restraint upon the perception and
evaluation of the individual. The exact parameters of that restraint would be an interesting focus of future research.

Cognitive Complexity Interaction Relationships

The interaction effect as presented in table 4 is, indeed, a major finding. This interaction of cognitive complexity, communication apprehension, world view, and rurality-urbanity has revealed an interrelationship of these aspects of interpersonal communication. Although each variable was not of sufficient strength in an individual main effect, the combination of variables gave a significant three-way interaction.

World view revealed a significant difference when considered under the conditions of rural population area and high as well as low levels of communication apprehension. First, this finding indicated that persons with a low level of communication apprehension from a rural population area who were fatalistic, had a higher degree of cognitive complexity than those persons from a rural population area with a low level of communication apprehension and a nonfatalistic world view. Secondly, this finding indicated that persons with a high level of communication apprehension and a low world view from a rural population area were lower in degree of cognitive complexity than those persons from a rural population area with a high level of communication apprehension and a high world view. These results provoke the question
as to why persons with a high degree of cognitive complexity from a rural background appear to have either a low level of communication apprehension and a low world view or a high level of communication apprehension and a high world view.

This difference can possibly be explained by considering the effect that world view has upon an individual's degree of cognitive complexity in conjunction with the additional factors of communication apprehension and population area. An individual may be able to perceive and discriminate effectively yet harbor beliefs of fatalism. In this instance, the communication skills can possibly play a dominant role, overriding the feelings of fatalism. Rural persons, because of involvement in close interpersonal relationships, may be outgoing and friendly with a high degree of cognitive complexity yet concealing inward feelings and beliefs.

The shy individual, experiencing a higher level of communication apprehension, may theorize and evaluate to a great extent, however, keeping his or her thoughts within the self and not verbalizing. The individual with a high level of communication apprehension and a high world view can thus differentiate, evaluate, and perceive to a finer degree than the same individual with a low world view. Thus, one's feeling of control, or nonfatalism according to the world view scores, and one's shyness seem to combine and affect the rural subject's ability to
differentiate interpersonally. Perhaps the reason for this is that a shy individual "goes underground" in his or her thinking. However, since the individual also believes that he or she is in control, no hesitancy is felt in developing interpersonal discriminations.

The variable of population showed a definite difference when considered with the other three variables. The more cognitively complex individuals were revealed to be from rural population areas of 10,000 persons or less, with a low world view and a low level of communication apprehension. The difference in complexity stems from rurality possibly because a less hurried atmosphere in a rural environment may allow for a more friendly, outgoing, and contented with his or her world yet fatalistic individual who can finely perceive others. The same kind of person from a more urban background apparently makes fewer interpersonal discriminations. The reason may stem from the urban concept of impersonal, perhaps superficial relationships. The urban person may inevitably contact numerous people but have no basis for detailed, interpersonal insights. The rural experience, by contrast, perhaps provides fewer contacts but deeper interpersonal insights about the people that are met. Thus, the rural experience assists in developing interpersonal and cognitive discrimination abilities, that is, provided that the individual is also fatalistic and low in communication apprehension. Hence, the adage in rural populations of "knowing
everything about everybody” may inadvertently lead to greater cognitive skills when it comes to interpersonal judgments.

The major differences in the level of communication apprehension were discovered to be in the low as well as the high levels of communication apprehension. Persons with a moderate level of communication apprehension were generally considered to have no change in the degree of cognitive complexity. This finding was an indication that persons with either a high or low level of communication apprehension can experience a high degree of cognitive complexity when considered with the variables of population and world view.

Persons with a low level of communication apprehension, a low world view, and from a rural population area were found to have a significantly higher degree of cognitive complexity than other persons in the same communication apprehension category. However, under a high level of communication apprehension, the higher degree of cognitive complexity was found for individuals with a high world view from a rural population area. These results indicate that a shy individual, one with a high degree of communication apprehension and with a low world view tended to allow anxiety to override and limit his or her perceptions and evaluations. The presence of a high world view, however, may have created a desire for control, for a nonfatalistic approach to be dominant, enriching the cognitive structure
to such an extent that the level of communication apprehension was recessive. The individual with a low degree of communication apprehension was possibly, through the capacity to speak freely, able to extend his or her construct system through communication, regardless of the presence of fatalism. A possible explanation may be that the more outgoing individual with a low level of communication apprehension is able, through strong interpersonal abilities, to override fatalistic tendencies while the individual with a high level of communication apprehension bends to the force of the communication apprehension and allows his or her anxieties and fatalistic feelings to dominate.

Limitations

In a critical examination of the study and its findings, a few limitations were noted which should be considered prior to future research in the area. First, more subjects could have been used in the study. Some cells in the analysis had too few subjects to be utilized. Too, groupings were made of cells in an attempt to maximize the available subjects tested. With a larger n size, a wider range of ages could have hopefully been attained, thus enabling the usage of that variable which could not be utilized in this study.

In addition, the variable of other organization membership yielded significant results, however, the
exact nature of what organizational memberships comprised that variable are unknown. Perhaps more specificity could have been achieved through a more subjective question wording.

Recommendations for Future Study

The variables as presented in this study have previously been unexplored. No study has shown such a significant sex difference. No study has indicated a significant multiple regression utilizing the variables of other organizational membership, sex, and number of children in the family as chief predictors. No study has been conducted examining the factors of cognitive complexity, urban-rural locality, communication apprehension, and world view. And, most important, no study has shown an interaction effect of the aspects of interpersonal communication of cognitive complexity, communication apprehension, world view, and urban-rural locality.

This study was the first of its kind to be conducted. The results imply an entirely new direction for research in the area of cognitive complexity. The interaction that has been found perhaps opens a "social" theory of cognitive complexity. Until now, cognitive complexity was viewed as an intrapersonal and interpersonal concept. Now, cognitive complexity can be examined as a "social" entity. As cognitive complexity has shown a significant relationship with communication
apprehension, world view, and urban-rural locality, the extent of that relationship needs to be again explored. Too, if these variables are so linked, what possibilities exist for other aspects of interpersonal communication. As a significant relationship has been shown to exist here, the possibilities for future study are boundless, seeking explanations and interrelationships for interpersonal communication theory.

Conclusions

The findings of the study as presented above appear justification for the following conclusions:

1. The sex of the subject has shown a powerful influence in the study. Males were found to be less cognitively complex than were females.

2. The group membership variables show a strong correlation with one another. However, the independent variable of other organization membership appears to exert the most influence of the organizations and is a predicting factor of cognitive complexity.

3. In addition to other group membership, the variables of sex and number of children in the family serve as chief predictors in explaining degree of cognitive complexity-simplicity.

4. A significant interaction effect exists among the variables of population, world view and communication apprehension when considered with cognitive
complexity. This interaction effect serves to indicate a link among the various aspects of interpersonal communication.

This study has served a dual purpose in its conceptualization, implementation, and evaluation. In highlighting the micro-level of analysis, the research has revealed some new variables that relate to cognitive complexity. In addition, the study is a reminder of the potential social variables and social categories approach that could be utilized in developing a theory of cognitive complexity.
APPENDIX A

Sex: 1 M__________ 2 F__________

Age: 1 18-20__________ 4 31-35__________
      2 21-25__________ 5 Over 35__________
      3 26-30__________

In the space provided below labeled A, please write a description of a real person your own age that you like. Without giving the person's name or physical characteristics, describe this person as fully as you can. In the description, pay particular attention to the person's habits, beliefs, ways of treating others, mannerisms, and similar attributes. You will have five minutes to write your impression of this person. If additional space is needed, use the back of this page.

A.
Now, in the space provided below labeled B, please write a description of a real person your own age that you dislike. Without giving the person's name or physical characteristics, describe this person as fully as you can. In the description, pay particular attention to the person's habits, beliefs, ways of treating others, mannerisms, and similar attributes. You will have five minutes to write your impression of this person. If additional space is needed, use the back of this page.

B.
APPENDIX B

Below you will find a series of opinion statements about a variety of subjects. Please indicate the degree to which each statement applies to you by circling whether you (1) Strongly Agree, (2) Agree, (3) Are Undecided, (4) Disagree, or (5) Strongly Disagree with each statement. There are no right or wrong answers. Work quickly, just record your first impression.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I look forward to expressing myself at meetings.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Man must work in relationship with God (gods) for him to be successful.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Man should accept the natural events which occur and not try to understand them or change them.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I am afraid to express myself in a group.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Man's success or failure depends somewhat on the actions of his ancestors.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Man is better off not to question life, but to accept things as they come.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>God (gods) control (s) natural events and decide (s) man's fate.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I look forward to an opportunity to speak in public.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Although I talk fluently with friends, I am at a loss for words on the platform.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>It is not good for man to try to understand nature or to try to control it.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I always avoid speaking in public if possible.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I feel that I am more fluent when talking to people than most other people are.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. Man's success or failure depends somewhat on the actions and attitudes of his family members.

14. Man's success or failure may be determined by the will of his ancestors.

15. Man can never truly control nature even with technology and should accept this fact.

16. Man's success or failure is often influenced by the actions of anyone in his immediate environment.

17. Man should use his natural curiosity to try to learn to control the various aspects of nature.

18. I like to get involved in group discussion.

19. Man will one day learn to control weather and nature.

20. As far as world affairs are concerned, most people are the victims of forces, they can neither understand nor control.

21. I dislike to use my body and voice expressively.

22. I am afraid to speak up in conversation.

23. Things always even out in the long run, and men are treated justly by nature eventually.

24. Every man has a specific, predetermined time to die.

25. Every life has a predetermined purpose.

26. I would enjoy presenting a speech on a local television show.
27. In the long run both the bad things and the good things that happen to us are beyond man's control.
28. Please indicate the number of organizations of which you are currently a member, both on and off campus. Membership here is defined as attending one or more meetings or activities within the past year and considering yourself an active member of the group. Please circle the correct answer for each number of groups.

1 Social 0 1 2 3 4 or more
2 Religious 0 1 2 3 4 or more
3 Academic 0 1 2 3 4 or more
4 Other 0 1 2 3 4 or more

29. Is the place that you consider your home a:

1 Farm_________ 3 City_________
2 Town__________ 4 Metropolitan Area_________

30. Please indicate the population of the place you consider to be your home.

1 Less than 500 ________ 6 25,001-50,000 ________
2 500-2,500 ________ 7 50,001-100,000 ________
3 2,501-5,000 ________ 8 100,001-250,000 ________
4 5,001-10,000 ________ 9 Over 250,000 ________
5 10,001-25,000 ________

31. Please indicate the size of your High School graduating class.

1 Less than 100 ________ 4 301-400 ________
2 101-200 ________ 5 401-500 ________
3 201-300 ________ 6 Over 500________

32. How many years did you attend the school from which you graduated?

1 Less than 1 Year ________ 4 3 Years ________
2 1 Year ________ 5 4 Years ________
3 2 Years ________ 6 Over 4 Years_______

33. Please indicate the total number of children in your family.

1 2 3 4 5 6 7 8 9 or more

34. Please show your order of birth in the family.

1 2 3 4 5 6 7 8 9 or more
35. Please circle the major occupation of the head of household in your family.

1 Farm 5 Health Related
2 Business 6 Education Related
3 Religious 7 Government/Military
4 Manufacturing 8 Other, Specify: ________


Crockett, Walter H.; Press, Allan N.; Delia, Jesse; and Kenny, Charles T. "Structural Analysis Of The Organization Of Written Impressions." University of Kansas, 1974. (Mimeographed.)

Crockett, Walter H.; Mahood, Sharon; and Press, Allan N. "Impressions of a speaker as a function of set to understand or to evaluate, of cognitive complexity, and of prior attitudes." Journal of Personality 43 (1975).


Delia, Jesse G.; Clark, Ruth Anne; and Switzer, David E. "The Content Of Informal Conversations As A Function Of Interactant's Interpersonal Cognitive Complexity." Communication Monographs 46 (November, 1979).


Garmon, C. W. "A scale development of world view." Western Kentucky University, 1980. (Mimeographed.)


ADDITIONAL REFERENCES


