ESS 561

PERSONALITY ADJUSTMENT OF RURAL AND URBAN CHILDREN: A CURRENT PERSPECTIVE

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ABSTRACT Early research in rural sociology was concerned with rural-urban personality adjustment. Recently, however, the research emphasis shifted to the effects of population density, which along with size, is a major component in rural and urban conceptualization as an explanation for adjustment. Our study attempts a replication with some significant modification of the classical study by Mangus (1948). Our study shows that (1) rural children do not possess a superiority in personality adjustment over their urban counterparts which is the reverse of the earlier study; (2) discrepancies in significance levels exist when different statistical techniques are compared between the studies. Implications of these findings are that the results of the Mangus study may be questionable and/or rural-urban differences are converging.

PERSONALITY ADJUSTMENT OF RURAL AND URBAN CHILDREN: A CURRENT PERSPECTIVE

The Problem

Between the years 1945 and 1959, "rural-urban personality adjustment" was a major research focus in rural sociology (See Nelsen and Storey, 1969, for a summary). Concern with personality adjustment and its relation to rural and urban milieus can be traced to several sources. Firstly, these notions were prominent in the thought of Toennies with respect to his ideal-type constructs of Gemeinschaft and Gessellschaft systems. Primary relationships and their corresponding features of belonging, security, involvement, and closeness became synonomous with rural social systems. Secondly, as U.S. society became increasingly urban, social scientists became increasingly concerned with the apparent "ills" of city living. Michaelson (1970:148), for example, notes with irony that the progressive concentration of the citizens of modernized countries in cities is accompanied by an ethos that glorifies rural virtues. A poll for Life Magazine conducted by Louis Harris in 1970 confirmed a distaste for large population concentrations. Only 45 percent of those queried wanted to be living in or near a city within ten years from the time the poll was taken.

Although the present study is not explicitly concerned with density, its conceptual role is key in understanding rural-urban personality adjustment. Density is the major characteristic of urban living; and, along with size of a settled area, constitute two of the most commonly chosen demographic variables. Taylor and Jones (1964:51) emphasize the significance of size and density to urban and rural conceptualizations.

> As a rule in the same country and at the same period, the size of the urban community is much larger than that of the rural community. In other words, urbanization and size of community are positively correlated. In the same country and at the same period, the density is lower in rural communities, generally, density and rurality are negatively correlated; urbanity and density are positively correlated.

Hatt and Reiss (1957) also reiterate the importance and relevance of density to rural and urban concepts.

Considerable research has been performed on the effects of population density, e.g., the effects of density on non-human animals (Calhoun, 1962); demographic and field studies of density and personal space related to humans (Winsborough, 1965; Schmitt, 1966; Mitchell, 1971); and experimental studies with humans exploring the effect of crowding on performance and interpersonal behavior (Dabbs, 1971: Griffit and Veitch, 1971; Freedman, et al., 1971, 1975; Hall, 1960, 1965; Felipe and Sommer, 1965; Sommer, 1969). However, studies of rural-urban differences in personality adjustment have not been prominent during recent years. Stokes and Miller (1975), for example, report that during a recent ten year period, one percent of research in Rural Sociology was devoted to the subject of rural-urban adjustment and personality.

One might attribute this lack of research in part to the presumed diminution--if not disappearance--of rural-urban differences in American society. However, recent studies of rural-urban differences (Willets, et al., 1973; van Es and Brown, 1974; Fischer, 1975) have re-established the fact that residence differences have not been leveled to the point of obscurity. Although the amount of variance in attitudes and behavior explained by residence was not large, there are persistent rural-urban differences in these phenomena.

The intent of this paper is to re-examine the problem of rural-urban personality adjustment to determine how personality adjustment might be related to rural-urban socialization milieus. In doing so, this study may be construed as a replication of Mangus' (1948) work on the personality adjustment of rural and urban children.

A brief summation of the findings and methodology reveals that rural children in grades three and six exhibited higher mean scores of personal and social adjustment than urban children living in a city of approximately 17,000 inhabitants. The California Test of Personality (elementary series) was the instrument utilized.

Critical ratios, based on univariate dependent variables, were computed to determine significant differences between the areas. Significant ratios were obtained for both grades.

Theoretical Background

Carnohan, et al. (1974:497) have traced the negative conceptualization of population densities on human behavior to the work of Simmel and Wirth. They note that:

> theoretical support for population density's effect on social relationships rests on the notion that the number of social actors per unit of area affects the potential contracts, both for a given individual and within the aggregate. Frequency of contact and communication is potentially multiplied exponentially as density increases. These contacts and communications create the possibility of increases in cooperation and/or conflict. On an aggregate level, high density settlement and the large number of contacts each individual may make create a preponderance of secondary and segmental role relationships.
>
> At the individual level, the possible effects of density concern health and well-being. The central idea here is that the mind is adversely affected by an excess of inputs.

Louis Wirth (1938) in his classic essay, "Urbanism As A Way of Life," attempted to account for and explain the changes in and implications for social life that had taken place in the transition from a rural to a predominantly urban society. Wirth (1957:48) argues that:

> It is these changes and ramifications that invite the attention of the sociologist to the study of the differences between the rural and the urban mode of living. The city and the country may be regarded as two poles in reference to one or the other of which all human settlements tend to arrange themselves. In viewing urban-industrial and rural folk society as ideal types of communities, we may obtain a perspective for the analysis of the basic models of human association, as they appear in contemporary civilization.

The concept of city is the main component of Wirth's theory but it has implications for the rural setting. The city concept implicitly refers to particular characteristics of rural social systems. Therefore, Wirth's theory which attributes size, density, and heterogeneity as the key features of the city by inference attributes importance to low levels of size, density, and heterogeneity of rural systems.

Morris (1968) has summarized Wirth's original text into twelve propositions. It was to be understood that size, density and heterogeneity are not the only characteristics which cities shared, but are the three key traits. Also, key features of the city are not logically the inevitable consequences of size and density of its groupings, but of a complex combination of features: its technology and communication system, its values and social structure, and its social and physical environment (Morris, 1968:172).

Fischer (1972) in elaboration, notes that as population, size, density, and heterogeneity increase, individuals who are part of that population are the unwilling recipients of increasingly overwhelming amounts of sensory stimuli calling for responses that are both physical and social; other people, public, messages, pleas for attention and concern. This raises the problem of "information overload" in the urban setting. Simmel (1957) and Milgram (1970) have stressed the importance of this feature. A directly related problem is overcrowding (Hall, 1965: 193).

The concept of overload is a term drawn from systems analysis. It refers to a system's inability to process inputs from the environment because there are too many inputs for the system to cope with, or because successive inputs come so fast that input A cannot be processed when input B is presented. In this context, adaptations have to be made and choices prioritized.

City life, as it is experienced in contemporary time, constitutes a continuous set of encounters with overload and adaptations. "Overload characteristically deforms daily life on several levels, impurging on role performance, the evolution of social norms, cognitive functioning and the use of facilities" (Milgram, 1970:1462). This notion is also implicit in Simmel's mention of the necessity to conserve psychic energy within the context of meeting vast numbers of people. The result was fewer acquaintances than their rural counterparts and maintaining more superficial relationships.

Milgram used the Genovese case in Queens as an example of adaptation involving the total disregard of needs of those who are not relevant to bystanders. Milgram points out that contrasts between city and rural behavior probably reflect the responses of similar people to very different situation, rather than intrinsic differences in the personalities of rural and city dwellers. The city is a situation to which individuals respond adaptively.

The basic tenet of the theory or theories relevant to this study is that a greater personality adjustment is impeded in larger, more dense, and more heterogeneous localities. In milieus with the above characteristics, personal adjustment (self-reliance, sense of personal worth, feeling of belonging and degree of withdrawing tendencies and nervous symptoms) and social adjustment (social skills, family relations, anti-social tendencies and community relations) are less likely to be experienced to the degree they are experienced in a rural situation.

In accordance with these notions, the general hypothesis of this study is essentially the same hypothesis that Mangus utilized in his study. It is hypothesized that the personality adjustment[1] of individuals is related to their rural or urban residence.[2] More specifically, rural-type residence is more conducive to better personal and social adjustment, as measured by the California Test of Personality (primary and elementary series), than urban residence.

Data and Methods

The total sample represents 355 third and sixth grade children from four different areas in Ohio. The four areas and schools are:

1. Sycamore and McCutchenville Elementaries, Mohawk School District in upper Wyandot County--94 children.

2. Chicago Avenue Elementary, Columbus Public Schools, Franklin County--83 children.

3. Bexley-Montrose Elementary School, Bexley, Ohio, Franklin County--82 children.

4. Kinnison Elementary School, Jackson, Ohio, Jackson County--96 children.

The attempt was made to develop a sample that would resemble a rural-urban continuum. Using population size (U.S. Census definition of rural-urban) as points along the continuum, the polarized areas would be Mohawk School District (largest village in the district, 1970 census, 1,096) and Chicago Avenue Elementary (inner-city Columbus, 1970 census, 471,316). Between these two extremes, Kinnison Elementary (Appalachian small city, 1970 census, 6,843) and Bexley-Montrose Elementary (suburb of Columbus, 1970 census, 14,888) would fall into place along the continuum.

The independent variable, rural-urban residence, has four levels represented by the above schools. There are two dependent measures of personality adjustment--personal adjustment and social adjustments which represent the two parts of the standardized test. Race is not controlled because of the insufficient number of blacks in the sample.

Product-moment correlation coefficients are utilized to establish the independence or dependence of the two dependent variables. Based on a report in the test manual of an intercorrelation of the two aspects of personality adjustment, a correlation is expected. The correlation analysis is supplemented with multivariate analysis of variance with the two dependent variables analyzed bivariately (Y_1Y_2). A univariate (Y_1)(Y_2) analysis of variance for each dependent variable is performed to provide comparability with the Mangus study.

The elementary series of the California Test of Personality was administered to all sixth grade children in the sample in April, 1977. The Primary series was the appropriate test for the third grade and was administered at the same time the sixth graders took the test. In the 1948 Mangus study, only the Elementary series was used for both third and sixth grade children.[3] The Primary version was ready for use in 1940 and is deemed appropriate for K-3 grades. Both series were revised in 1953 to increase reliability and validity.

In summary, certain modifications have been made in the present study in comparison to the Mangus study. The modifications consist of a more varied sample in size, density, and heterogeneity: inclusion of another series of the California Test of Personality; the utilization of more sophisticated and appropriate statistical procedures than were utilized in the earlier study.

Results

For this study, Table 1 presents the correlation between the personal adjustment scores and social adjustment scores for each grade. As the data in the table indicate, there is a strong relationship. Dependence between the two sets of test scores dictates that they should be analyzed as a bivariate dependent variable as opposed to two unrelated variables.

Table 1

A comparison of mean adjustment scores and their respective standard deviations for the third grade by area is illustrated in Table 2.

Table 2

The range of scores for the groups was 28.1 (rural) to 31.8 (suburb) in terms of personal adjustment.

With respect to social adjustment, the range was 30.7 (inner city) to 34.5 (Appalachian small town). Although the numerical values differ on the two tests, the differences are almost the same (3.7 and 3.8). The two tests exhibit F ratios that were significant at the arbitrary .05 level. However, the differences were quite meager despite the fact that they were statistically significant.

Table 3 presents adjustment data for the sixth grade classes.

Table 3

Two sets of data for the same comparison are necessary since the primary series (see Table 2) has a different range of scores than the elementary series (see Table 3).

The range of scores for this grade was much greater, and the differentials between the groups were more disparate (8.8 to 6.7). The pattern of scores was somewhat different than in the third grade. The suburban children had the highest mean score (52.6) and the inner-city children scores lowest (43.8). The rural children were next to last with a mean score of 46.6.

The social adjustment scores followed a similar sequence with one exception. The suburban group exhibited the highest mean (55.4), and the inner-city counterpart was tied in the lowest position (48.7) with the rural group (48.7).

To test the significance of area on personality adjustment, the two tests show ratios that fail to achieve significance at the .05 level. Thus, the null hypothesis of no differences between areas for the sixth graders was not rejected.

Table 4

Table 4 illustrates an univariate analysis of variance and its significance or non-significance on personal and social adjustment for the third grade. The significance levels obtained by this analysis are well above .05. This is in contrast to the multivariate analysis where the significance levels are .048 and .046 (see Table 5). For the sixth grade, an opposite situation exists. The area effect makes a difference for this grade level. The significance levels are very much below .05.

In comparison with the multivariate procedure as illustrated in Table 5, significance levels exceed .05 for a conclusion of no significant differences.

Table 5

A comparison of the above table of univariate ANOVA[4] and the table of MANOVA (Table 5) shows how discrepant the findings are between the two statistical procedures.

A univariate procedure was followed in the previous study. Using one instrument with one range of scores for both grades in the earlier study, two means were computed for the farm and city groups in personal and social adjustment. Similar computations were made for farm-village and village-city. Each actual difference between mean scores when expressed in terms of its standard error gives a result known as the critical ratio or as the significance ratio (Tuttle, 1957:283). In interpreting the critical ratio it is customary to consider a difference twice as great as its standard error indicative of a statistically significant difference. The critical ratio for the two groups (farm-city) was 4.0. Its probability of chance occurrence is about .001 (Mangus, 1949:9).

In a context of a strong relationship (as seen in Table 1) between the scores of the two tests (personal and social adjustment), it is concluded that the MANOVA provides a more appropriate interpretation than the previous statistical analysis.

Discussion

The present study has reexamined the problem of rural-urban differences in personality adjustment. Mangus' (1948) study was modified in instrumentation, sample, and computation of a different statistical technique. The findings showed that the personality adjustment scores of children living in a rural area were generally not higher than scores received by children living in urban type areas--mainly an inner-city, a city-suburb, and a small city. There were two exceptions. The social adjustment scores of the inner-city area in the third grade; in the sixth grade rural personal adjustment scores were higher than inner-city and social adjustment scores were ties with the inner city.

The four areas significantly differed on their mean scores in the third grade. But, the significance levels obtained were too close to the .05 level adopted to allow for an acceptance of substantive differences by this investigator. The sixth grade showed no significant difference of means between areas. The findings were in direct contrast to the earlier study where rural children exhibited an overall superiority and significant differences existed for both grades.

An univariate analysis of variance was computed with the same data. A comparison of univariate and multivariate ANOVA revealed discrepancies between the two statistical techniques.

Based on the results, the general hypothesis that the personality adjustment of individuals is related to their rural or urban residence was not confirmed. The expectation that a rural area with relatively low density would be conducive to better personal and social adjustment as measured by a standardized test of personality was generally not substantiated.

It appears that the findings of Mangus' (1948) study--which is cited frequently in the literature as evidence of rural-urban differences in personality adjustment--are open to question due to the nature of the instrument used for the third grade and the inappropriateness of the statistical procedure. According to inferences in past research, if any rural-urban differences in personality adjustment were to exist the differences were expected between rural children and children living in large urban areas. This was not the case in this study.

This study has implications for the issue of rural-urban disparities that has reemerged in the literature (van Es and Brown, 1974; Willets, et al., 1973). The data in this study fail to confirm the conclusion made in the Willets, et al., (1973) study that the variable "rurality" continues to represent a useful tool for dealing with attitudinal and possible other differences as in the past.

Table 1

Partial Correlation Coefficients
of Two Tests by Grade

Tests & Grade	Test Personal Adjustment
Third Grade	
Social Adjustment DF = 169	r = .701
Sixth Grade	
Social Adjustment DF = 169	r = .719

Table 2

Comparison of Mean Adjustment Scores
for Third Grade Children by Area

Area	Number of Children	Personal Adjustment* Mean Score	Personal Adjustment* Standard Deviation	Social Adjustment** Mean Score	Social Adjustment** Standard Deviation
Central City Columbus	42	29.1	6.7	30.7	7.4
Upper Wyandot County	41	28.1	8.3	31.0	8.5
Bexley	52	31.8	8.9	33.0	8.3
Jackson City	42	31.4	6.0	34.5	5.8

Hotelling-Lawley Trace: $F = 2.14$; $p < .05$; sig.
Pillai's Trace: $F = 2.16$; $p < .05$; sig.

*Scores range from 0 to 96.
**Scores range from 0 to 96.

Table 3

Comparison of Mean Adjustment Scores
for Sixth Grade Children by Area

Area	Number of Children	Personal Adjustment* Mean Score	Personal Adjustment* Standard Deviation	Social Adjustment** Mean Score	Social Adjustment** Standard Deviation
Central City Columbus	41	43.8	11.0	48.7	9.8
Upper Wyandot County	55	46.6	10.4	48.7	9.4
Bexley	30	52.6	10.3	55.4	10.4
Jackson City	52	47.3	11.3	50.8	10.8

(Dependent Variable: Personal Adjustment*, Social Adjustment**)

Hotelling-Lawley Trace: $F = 1.82$; $p > .05$; n.s.
Pillai's Trace: $F = 1.81$; $p > .05$; n.s.

*Scores range from 0 to 144.
**Scores range from 0 to 144.

Table 4

ANALYSIS OF VARIANCE PERSONAL AND SOCIAL ADJUSTMENT BY AREA FOR THIRD AND SIXTH GRADES

	Dependent Variable										
	Personal Adjustment						Social Adjustment				
Grade Level	Sum of Squares	D.F.	Total $\bar{X}^2$	F	PR F	Source	Sum of Squares	D.F.	Total $\bar{X}^2$	F	PR F
Third Grade	405.70	3	124.93	2.38	.07	Area	412.81	3	116.18	2.41	.06
Sixth Grade	1,372.55	3	243.94	3.89	.01*		1,030.93	3	294.23	3.51	.01*

*Significant at .05.

Table 5

MANOVA Test Criteria For The Hypothesis of No Overall
Effect By Area For Third and Sixth Grades

	TESTS			
	Hotelling-Lawley Trace		Pillai's Trace	
Grade Level	F Ratio	Significance	F Ratio	Significance
Third Grade	2.14	.048*	2.16	.046*
Sixth Grade	1.82	.094	1.81	.095

*Significant at .05.

FOOTNOTES

[1]Both words, "personality" and "adjustment" represent difficult tasks for defining purposes. As far as "personality" is concerned, there have been at least fifty definitions (Guilford, 1959) and theorists have selected from an unabridged dictionary 18,000 words that could be used to analyze and discuss personality (Bernard, 1974:5-6). Stagner (1961) believed that personality should be defined in terms of two broad categories which are not contradictions of each other, i.e., in terms of stimulus value a person has on others and in terms of response (Bernard, 1974:6).

Mangus (1948) defined personality as a biosocial product made up of various systems of habits and attitudes of his/her native endowments and the interaction of this maturing individual with his/her social experiences within the surrounding environment.

The above definition consists of biological, psychological, and social factors within the related categories of heredity, self and environment. Within those categories is the implied stimulus-response patterns.

Adjustment in the mental health field is not without ambiguity. "It is often found in a context that leaves to anyone's whim whether it should be understood as passive acceptance of life's situation or as a synonym for adaptation" (Jahoda, 1958:62).

The term "adjustment" as used by Mangus (1948) refers to the extent to which various systems of attitudes, feelings, and actions which make up the personality function harmoniously together and the extent to which a personality functions efficiently in a context of interpersonal relationships. The above definition is applicable in the present study.

[2]Rural and urban are defined according to the 1970 census definitions.

[3]Actually, three instruments were employed in the 1948 study to measure the dependent variable, personality adjustment. The two instruments other than the California Test of Personality were a test called "Guess Who" used as a companion rating scale and a device by which different teachers ranked their students according to their best judgment of the student's mental health.

The "Guess Who" game is not accessible at the present time and the teachers' ranking method, in this opinion, was too generalized and subjective. Elmore and Beggs (1975:70) reported that, in general, the results of previous research (Barnard, Zuirbado and Sarasor, 1968; Openshaw, 1967; Scorpetti and Lane, 1967) have indicated that teachers are not consistent in their overall ratings of pupil behaviors. In studies (Miller, 1972; Rubin and Krus, 1973) that have reported fairly high reliability coefficients, some type of itemized test was used versus a subjective device.

[4]In univariate ANOVA, the optimal testing criterion is generally agreed to be an F test of the sample variance ratio. However, in MANOVA, alternative criteria have been proposed for testing the same hypothesis; and these criteria do not always yield the same results in p dimensions. "P" equals the number of dependent variables. In this study, as mentioned previously, there were two dependent variables computed bivariately $(Y_1 Y_2)$. Hence p would equal 2. If $(Y_1)(Y_2)$ were the dependent variables, then p would equal 1. For p equals 1, all the testing criteria become identical.

One criterion is the trace criterion (sum of roots). Trace BW^{-1} (Winer, 1962:236) - "B" is equivalent to the H parameter in SAS (Statistical Analysis System) that specifies which effect in the preceding model is to be used as a hypothesis matrix. In this study, the matrix was area. "W" is equivalent to the E parameter which represents the error effect.

The trace criterion involves the use of Hotelling To^2 statistic. Two criterion tests utilized for a sample size of this study were Hotelling-Lawley Trace and Pillai Trace.

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