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RURAL-URBAN PERSONALITY DIFFERENCES IN UTAH ADOLESCENTS

AS MEASURED BY THE CPI

by

Benjamin K Nelson

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Psychology

UTAH STATE UNIVERSITY
Logan, Utah

1972

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Benjamin K Nelson

Benjamin K Nelson

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ABSTRACT

Rural-Urban Personality Differences in Utah Adolescents

As Measured by the CPI

by

Benjamin K Nelson, Master of Science

Utah State University, 1972

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Department: Psychology

The CPI (California Psychological Inventory) was administered to 395 high school students to determine if personality differences exist between rural and urban adolescents in Utah. Of those tested, 219 were selected from three rural schools and 176 were selected from three urban schools.

Ten of the eighteen individual scales of the CPI showed differences between rural and urban students at the $P < .01$ level and two more showed differences at the $P < .05$ level. Two of the four classes of scales showed differences at the $P < .01$ level, and the other two classes showed differences significant at the $P < .05$ level. In each case where significant differences were found, the differences favored the urban students. The results of this study indicate that the urban students in Utah tend to have more positive personality characteristics than the rural students.

(40 pages)

INTRODUCTION

That there are personality differences between rural and urban populations has been accepted by many for a long time. Medieval literature depicts the rural person as a dumb, coarse fellow. Eighteenth and early nineteenth century writings paint a rather idyllic, happy and innocent paradise picture of rural life. Nineteenth century literature has periods of both positive and negative characterizations of rural life. (For a summary of the literature in these areas, see Sorokin and Zimmerman, 1929, p. 306-308.) It should be noted that this literature does not give facts. What it does reflect is the writer's opinion of the social trends of the time. But these trends do give us an idea of what rural-urban differences are seen at the time.

In the more recent past, there have been many studies done to determine if there are personality differences between rural and urban adolescents. However, the results of these studies have produced different conclusions. Some have shown no significant differences (see Burchinal, Hawkes and Gardener, 1957, three independent studies), whereas some have shown differences (Stott, 1945; Mangus, 1948; Nye, 1950).

The preceding studies deal with the broad area of personality adjustment. However, more specific aspects of personality adjustment (such as shyness, self-depreciation, and suspiciousness) have also been found to differ significantly between rural and urban adolescents. Hathaway (one of the originators of the MMPI), Monachesi, and Young (1959) conducted a study in which they measured personality differences

on the MMPI. As they expected, "The data presented indicate that rural and urban ninth-grade school children differ in personality characteristics" (p. 333).

Since the MMPI has been found to show personality differences between rural and urban adolescents, other tests measuring characteristics like those measured on the MMPI might also be expected to show differences.

One such test is the California Psychological Inventory (CPI). Published in 1957 by Dr. Harrison Gough, the CPI has been widely used to assess personality characteristics in normal populations. In contrast the MMPI was designed to assess personality characteristics of abnormal (psychiatrically disturbed) persons. Thus, for determining rural-urban personality differences in the general, normal population, the CPI is more appropriate than the MMPI.

In his latest CPI manual (1969), Gough states, "The amount of information yielded by a psychological test interpretation is a function of the comprehensiveness and adequacy of the instrument" (p. 8). Not being certain of the extent of comprehensiveness and adequacy of the CPI, Gough invites further validity studies. One such validity study would be to determine if any of the scales of the CPI differ significantly between rural and urban adolescents. If differences were found, these differences should be kept in mind in the interpretation of individual profiles. This study, then, would add to the validity of the CPI. It would also challenge personality theorists to explain any differences that might be found.

The problem, then, is a lack of data as to whether there are significant personality differences between urban and rural adolescents as measured by the individual scales of the CPI.

REVIEW OF LITERATURE

In the previous section a brief discussion of personality differences between rural and urban adolescents was presented. This section will go into more detail on the studies cited there and other studies, and show how the present study fits with previous research.

Though considerable research has been done to determine whether significant differences in personality adjustment occur between rural and urban adolescents, the results have not been in full agreement.

Several studies have indicated that no significant differences occur in personality adjustment between rural and urban adolescents. Burchinal, Hawkes, and Gardener (1957) have done three studies in which they found no significant differences. Their so called "four state study" is one in which data relating to personality development were gathered on 256 children from four midwestern states (Iowa, Ohio, Kansas and Wisconsin). Within each of the four states, two strata of population (rural areas and cities in the 2,500 to 10,000 range) were defined. Eight sample points, defined as elementary school districts and divided between the two strata, were drawn for each state sample "by a probability method." Eight children, whose parents were living together and who had at least one sibling, were randomly selected from the fifth grade class (or classes) at each of the sampling points.

Based on data from the Rogers Test of Personality Adjustment, which was used to determine levels of personality adjustment, the authors concluded, "The rural-urban differences were nonsignificant,

but there was a suggestion that given larger samples of rural children and urban children from larger cities, reliable differences favoring the urban children might be found.... The four-state sample of children permitted testing for differences in personality adjustment scores for farm, rural-non-farm, and small city children. The bulk of the data again suggested that measurable personality differences did not exist among these groups of children" (p. 87).

Burchinal, Hawkes, and Gardener (1957) found similar results in their Hamilton County study. They utilized the primary series of the California Test of Personality (CTP) to assess personal and social adjustment of a sample of 485 "urban" children (from a city of 7,600 people) and 157 rural children (from one-room schools in the same area as the urban group). They concluded that the data "indicated that the differences between personality adjustment scores of the farm and city children studied were negligible" (p. 83).

In the Marshalltown study, the same authors used rural and urban fifth-grade children and the elementary series of the CTP. Again they found no significant personality differences between rural and urban adolescents.

Although the above studies found no significant differences in personality adjustment between rural and urban adolescents, some studies have found significant differences. In one such study, Stott (1945) found significant differences in self-adjustment. He selected 1,217 children as his sample to be representative of the rural child population of the Middle West. All of the children were in grades four to eight, with 904 coming from 14 "small village" elementary schools and 313 from 46 one-room country schools. On the basis of his data from the elementary

series of the California Test of Personality, Stott concluded, "In self-adjustment, a statistically significant difference favored the farm children" (p. 396).

Similar results were obtained in a study by A. R. Mangus (1948). His study was designed to determine whether "living on a farm and growing up in a farm home prove a help or a hindrance to the achievement of desirable personality adjustment as compared to living in a village or in a city" (p. 566). Drawn from Miami County, Ohio, the 1,229 subjects consisted of third and sixth grade students. (The method of selection was not discussed in the paper.) Of the students, 371 came from farms, 573 came from rural non-farm homes, and 285 came from cities of about 17,000 inhabitants. Three instruments were used in obtaining data: The elementary series of the California Test of Personality, teacher rankings of students (according to degree of teacher-estimated mental health), and a "Guess Who" test by which students in the classroom "recorded their own observations of deviant attitudes and roles in other members of their class" (p. 567).

In concluding his report, Mangus stated, "As a result of statistical analyses it appears conclusive that in Miami County in the spring of 1946, farm children as a group had achieved a somewhat higher level of personal and social adjustment than urban children living in the small city included in the study" (p. 567).

Personality differences were also found in adolescent-parent adjustment as reported by Nye in 1950. He used the Adolescent-Parent Adjustment Scale and found that adolescent-parent adjustment tended to be inversely related to rurality. (More rural, poorer adjustment.)

Realizing the inconsistency in the results of studies of personality adjustment differences between rural and urban adolescents, Hathaway

(one of the originators of the MMPI), Monachesi, and Young (1959) designed a study to test personality differences on the MMPI. The MMPI was administered to more than 15,000 Minnesota ninth graders "as a part of a longitudinal investigation of the development of personal and social adjustment" (p. 334). The major analyses dealt with "profile comparisons among samples of adolescents living in cities and suburbs (about 100,000 inhabitants), in towns (4,000-30,000), and on farms" (p. 334).

At the time of this study (1959) there were ten scales on the MMPI. Hathaway, Monachesi, and Young concluded, "Averaged profiles on the ten scales were obtained for the three population categories, but these did not show much difference" (p. 336). The averaged profiles showed no significant differences between rural and urban adolescents, but mean scores on several of the ten scales were found to differ significantly between the rural and urban adolescents. Further summarizing their results Hathaway, Monachesi, and Young stated, "The data presented indicate that rural and urban ninth grade school children differ in personality characteristics. Rural boys and girls in general express more feelings of shyness, self-depreciation, suspicion of others, and a few fears rational to rural life. Urban boys and girls are more apt to rebel against authority and are less self-critical and less suspicious of the motives of others than the rural adolescents" (p. 346).

Throughout this review, the terms personality adjustment, self-adjustment, adolescent-parent adjustment, and personality characteristics have been used. For the present study there is no reason to differentiate among these terms. They are all related to personality, and this study deals with the broad area of personality.

The studies cited in this section are indicative of the diversity of results obtained in determining whether differences exist in personality adjustment between rural and urban adolescents.

METHODS OF PROCEDURE

Subjects

The sample was selected from all high school sophomores, juniors, and seniors in Utah high schools. The high schools were divided into rural, urban, or intermediate, and the intermediate schools were not included in the sample. The urban schools came from the only area in Utah which could be considered "urban" (Salt Lake - Ogden area). The rural schools were limited to schools in which the 1970-71 population (in grades 9 through 12) was under 350 students. The number 350 was selected because there appeared to be a natural break there and about one third of the Utah high schools had under 350 students. These schools were numbered, and three of them were selected randomly, using a table of random numbers.

The urban schools were selected to be representative of the socio-economic class of the area. Two classes were selected from each of these schools, also to be representative of the school. (The classes were selected by the principal of each school.) General education classes were used, so that there would be no selection bias related to college-bound students, technical school students, or other post-high school areas of interest.

The entire junior class of two of the three rural schools was given the CPI. The third school had some students who may not have fit into the rural definition. Therefore, the classes used were rural-oriented (vocational agriculture boys and home-economics girls).

Table 1 gives the numbers of rural and urban boys and girls included in the sample, and the numbers of sophomores, juniors, and seniors.

Table 1. Summary of subjects in sample

	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
Male	83	107	190
Female	93	112	205
Sophomores	15	33	48
Juniors	103	172	275
Seniors	58	14	72
	N = 176	N = 219	Total N = 395

As may be seen, there were 176 urban students and 219 rural students. Of the total (395), 190 were boys and 205 were girls. There were 48 sophomores, 275 juniors, and 72 seniors.

Instrumentation

The test used was the California Psychological Inventory (CPI). Published by Harrison G. Gough, Ph.D., in 1957, the CPI was designed "primarily for use with 'normal' (non-psychiatrically disturbed) subjects. Its scales are addressed principally to personality

characteristics important for social living and social interaction" (Gough, 1969, p. 5).

The CPI consists of 480 items (approximately 200 of which appeared originally in the MMPI). The subject reads a statement and decides if he feels it is true about him or not true about him. He then marks "True" or "False" on the answer sheet. The items yield a profile of eighteen scales, which are further grouped into four classes. Figure 1 lists each scale, its purpose, and what high and low scores tend to be seen as.

When the answer sheet is scored, a raw score is given for each of the eighteen scales. The raw score can then be converted to a standard score. These scores can then be plotted to give a profile as in figures 2 and 3.

Validity and reliability of the test appear to be fairly high. For example, test-retest reliabilities based on 200 male prisoners retested after one to three weeks ranged from .49 to .87 with a median of .80. Regarding the adequacy of the CPI, Kelly (1965) stated in a review of the test that for its stated purpose it "is one of the best, if not the best, available instrument of its kind" (p. 71). Anastasi (1968) stated, "The CPI is one of the best personality inventories currently available. Its technical development is of a high order and it has been subjected to extensive research and continuous improvement" (p. 448). For normal populations, and for assessing "normal" personality characteristics, the CPI is more appropriate than the MMPI, because the MMPI was designed to detect "abnormal" personality characteristics. Gough validated the CPI with both sexes and different age levels. He presents mean profiles

HIGH SCORERS <i>Tend to be seen as:</i>	SCALE AND PURPOSE	LOW SCORERS <i>Tend to be seen as:</i>
Class I. Measures of Poise, Ascendancy, Self-Assurance and Interpersonal Adequacy		
Aggressive, confident, persistent, and planful; as being persuasive and verbally fluent; as self-reliant and independent; and as having leadership potential and initiative.	1. Do (dominance) To assess factors of leadership ability, dominance, persistence, and social initiative.	Retiring, inhibited, commonplace, indifferent, silent and unassuming; as being slow in thought and action; as avoiding of situations of tension and decision; and as lacking in self-confidence.
Ambitious, active, forceful, insightful, resourceful, and versatile; as being ascendant and self-seeking; effective in communication; and as having personal scope and breadth of interests	2. Cs (capacity for status) To serve as an index of an individual's capacity for status (not his actual or achieved status). The scale attempts to measure the personal qualities and attributes which underlie and lead to status.	Apathetic, shy, conventional dull, mild, simple, and slow; as being stereotyped in thinking; restricted in outlook and interests; and as being uneasy and awkward in new or unfamiliar social situations.
Outgoing, enterprising, and ingenious; as being competitive and forward; and as original and fluent in thought.	3. Sy (sociability) To identify persons of outgoing, sociable, participative temperament.	Awkward, conventional, quiet, submissive, and unassuming; as being detached and passive in attitude; and as being suggestible and overly influenced by others' reactions and opinions.
Clever, enthusiastic, imaginative, quick, informal, spontaneous, and talkative; as being active and vigorous; and as having an expressive, ebullient nature	4. Sp (social presence) To assess factors such as poise, spontaneity, and self-confidence in personal and social interaction.	Deliberate, moderate, patient, self-restrained, and simple; as vacillating and uncertain in decision; and as being literal and unoriginal in thinking and judging.
Intelligent, outspoken, sharp-witted, demanding, aggressive, and self-centered; as being persuasive and verbally fluent; and as possessing self-confidence and self-assurance.	5. Sa (self-acceptance) To assess factors such as sense of personal worth, self-acceptance, and capacity for independent thinking and action.	Methodical, conservative, dependable, conventional, easygoing, and quiet; as self-abasing and given to feelings of guilt and self-blame; and as being passive in action and narrow in interests.
Energetic, enterprising, alert, ambitious, and versatile; as being productive and active; and as valuing work and effort for its own sake.	6. Wb (sense of well-being) To identify persons who minimize their worries and complaints, and who are relatively free from self-doubt and disillusionment.	Unambitious, leisurely, awkward, cautious, apathetic, and conventional; as being self-defensive and apologetic; and as constricted in thought and action.
Class II. Measures of Socialization, Maturity, Responsibility, and Intrapersonal Structuring of Values		
Planful, responsible, thorough, progressive, capable, dignified, and independent; as being conscientious and dependable; resourceful and efficient; and as being alert to ethical and moral issues.	7. Re (responsibility) To identify persons of conscientious, responsible, and dependable disposition and temperament.	Immature, moody, lazy, awkward, changeable, and disbelieving; as being influenced by personal bias, spite, and dogmatism; and as under-controlled and impulsive in behavior.
Serious, honest, industrious, modest, obliging, sincere, and steady; as being conscientious and responsible; and as being self-denying and conforming.	8. So (socialization) To indicate the degree of social maturity, integrity, and rectitude which the individual has attained.	Defensive, demanding, opinionated, resentful, stubborn, headstrong, rebellious, and undependable; as being guileful and deceitful in dealing with others; and as given to excess, exhibition, and ostentation in their behavior.
Calm, patient, practical, slow, self-denying, inhibited, thoughtful, and deliberate; as being strict and thorough in their own work and in their expectations for others; and as being honest and conscientious.	9. Sc (self-control) To assess the degree and adequacy of self-regulation and self-control and freedom from impulsivity and self-centeredness.	Impulsive, shrewd, excitable, irritable, self-centered, and uninhibited; as being aggressive and assertive; and as overemphasizing personal pleasure and self-gain.
Enterprising, informal, quick, tolerant, clear-thinking, and resourceful; as being intellectually able and verbally fluent; and as having broad and varied interests.	10. To (tolerance) To identify persons with permissive, accepting, and non-judgmental social beliefs and attitude.	Suspicious, narrow, aloof, wary, and retiring; as being passive and overly judgmental in attitude; and as disbelieving and distrustful in personal and social outlook.
Co-operative, enterprising, outgoing, sociable, warm, and helpful; as being concerned with making a good impression; and as being diligent and persistent.	11. Gi (good impression) To identify persons capable of creating a favorable impression, and who are concerned about how others react to them.	Inhibited, cautious, shrewd, wary, aloof, and resentful; as being cool and distant in their relationships with others; and as being self-centered and too little concerned with the needs and wants of others.

Figure 1. CPI scale definitions and a listing of characteristics frequently associated with high and low scores on each measure (Gough, 1969, p. 10 and 11)

HIGH SCORERS <i>Tend to be seen as:</i>	SCALE AND PURPOSE	LOW SCORERS <i>Tend to be seen as:</i>
Class II. Measures of Socialization, Maturity, Responsibility, and Intrapersonal Structuring of Values (Continued)		
Dependable, moderate, tactful, reliable, sincere, patient, steady, and realistic; as being honest and conscientious; and as having common sense and good judgment	12. Cm (communality) To indicate the degree to which an individual's reactions and responses correspond to the modal ("common") pattern established for the inventory.	Impatient, changeable, complicated, imaginative, disorderly, nervous, restless, and confused; as being guileful and deceitful; inattentive and forgetful; and as having internal conflicts and problems.
Class III. Measures of Achievement Potential and Intellectual Efficiency		
Capable, co-operative, efficient, organized, responsible, stable, and sincere; as being persistent and industrious; and as valuing intellectual activity and intellectual achievement.	13. Ac (achievement via conformance) To identify those factors of interest and motivation which facilitate achievement in any setting where conformance is a positive behavior.	Coarse, stubborn, aloof, awkward, insecure, and opinionated; as easily disorganized under stress or pressures to conform; and as pessimistic about their occupational futures.
Mature, forceful, strong, dominant, demanding, and foresighted; as being independent and self-reliant; and as having superior intellectual ability and judgment.	14. Ai (achievement via independence) To identify those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors.	Inhibited, anxious, cautious, dissatisfied, dull, and wary; as being submissive and compliant before authority; and as lacking in self-insight and self-understanding.
Efficient, clear-thinking, capable, intelligent, progressive, planful, thorough, and resourceful; as being alert and well-informed; and as placing a high value on cognitive and intellectual matters.	15. Ie (intellectual efficiency) To indicate the degree of personal and intellectual efficiency which the individual has attained.	Cautious, confused, easygoing, defensive, shallow, and unambitious; as being conventional and stereotyped in thinking; and as lacking in self-direction and self-discipline.
Class IV. Measures of Intellectual and Interest Modes		
Observant, spontaneous, quick, perceptive, talkative, resourceful, and changeable; as being verbally fluent and socially ascendant; and as being rebellious toward rules, restrictions, and constraints.	16. Py (psychological-mindedness) To measure the degree to which the individual is interested in, and responsive to, the inner needs, motives, and experiences of others.	Apathetic, peaceable, serious, cautious, and unassuming; as being slow and deliberate in tempo; and as being overly conforming and conventional.
Insightful, informal, adventurous, confident, humorous, rebellious, idealistic, assertive, and egoistic; as being sarcastic and cynical; and as highly concerned with personal pleasure and diversion.	17. Fx (flexibility) To indicate the degree of flexibility and adaptability of a person's thinking and social behavior.	Deliberate, cautious, worrying, industrious, guarded, mannerly, methodical, and rigid; as being formal and pedantic in thought; and as being overly deferential to authority, custom, and tradition.
Appreciative, patient, helpful, gentle, moderate, persevering, and sincere; as being respectful and accepting of others; and as behaving in a conscientious and sympathetic way.	18. Fe (femininity) To assess the masculinity or femininity of interests. (High scores indicate more feminine interests, low scores more masculine.)	Outgoing, hard-headed, ambitious, masculine, active, robust, and restless; as being manipulative and opportunistic in dealing with others; blunt and direct in thinking and action; and impatient with delay, indecision, and reflection.

Figure 1. Continued

PROFILE SHEET FOR THE *California Psychological Inventory*: FEMALE

Name _____ Age _____ Date Tested _____

Other Information _____

Notes:

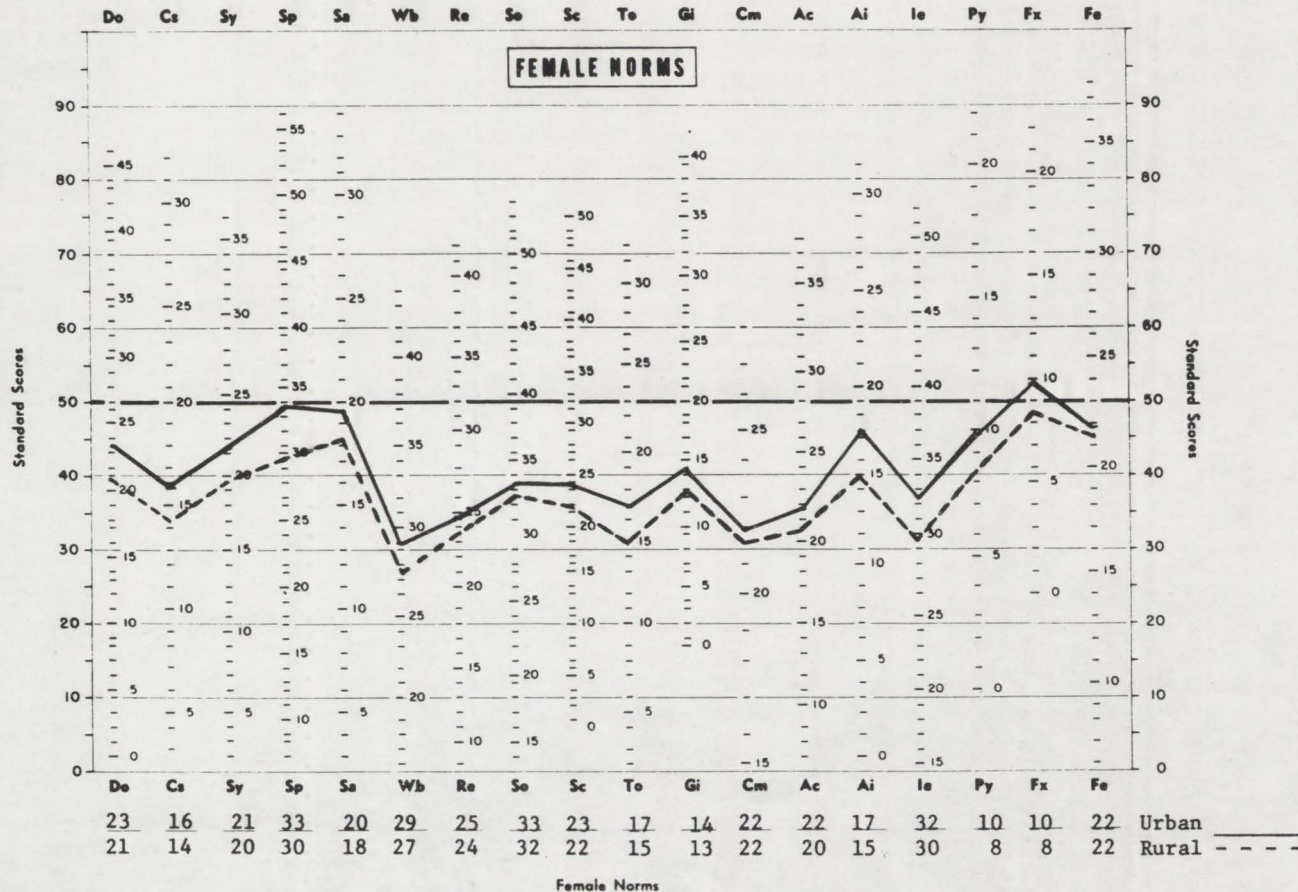


Figure 2. CPI profiles for rural and urban girls

Reproduced from Manual for The California Psychological Inventory, by Harrison G. Gough, Ph.D. Copyright by Consulting Psychologists Press, Inc., Palo Alto, California. All rights reserved.

PROFILE SHEET FOR THE *California Psychological Inventory: MALE*

Name _____ Age _____ Date Tested _____

Other Information _____

Notes:

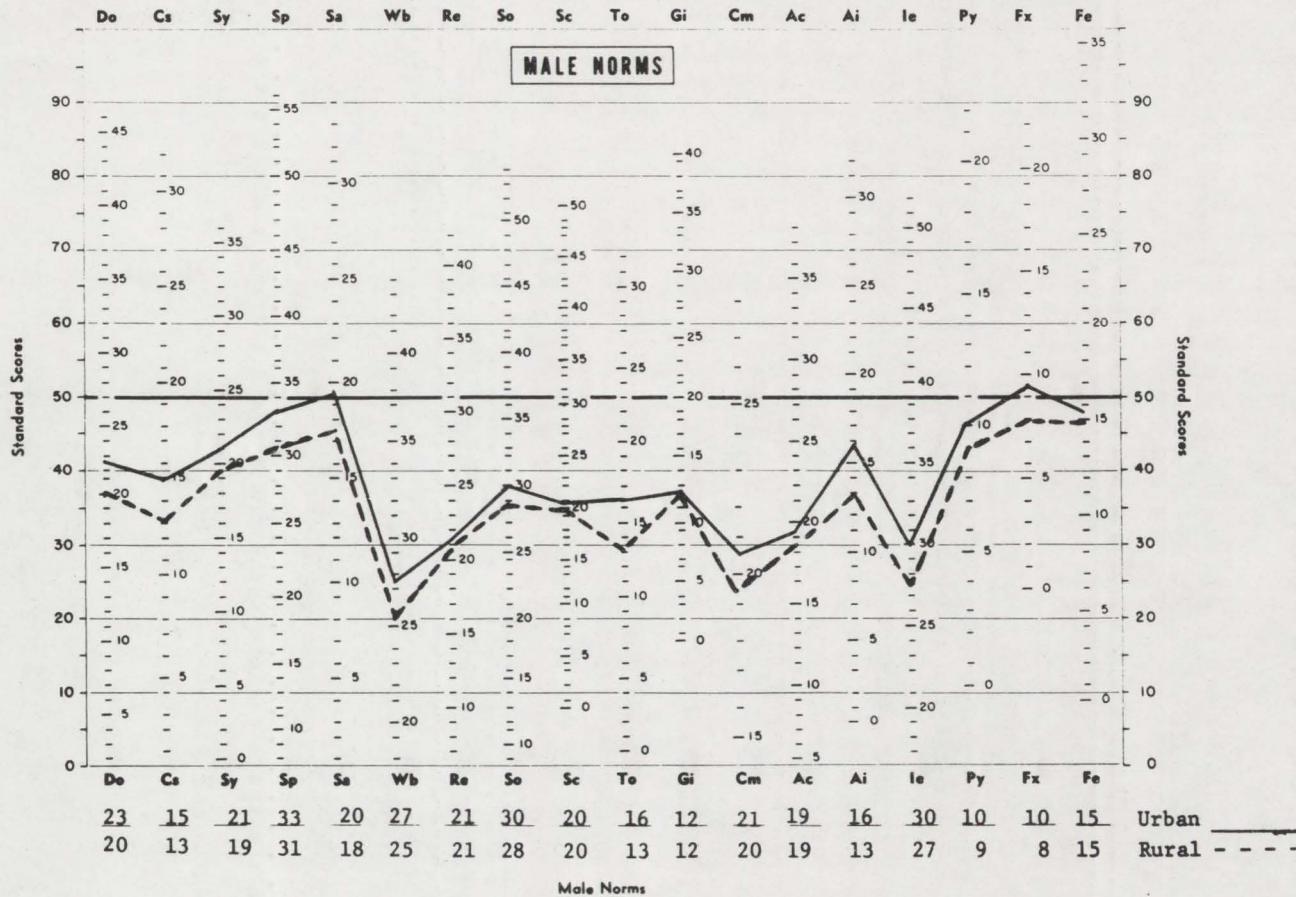


Figure 3. CPI profiles for rural and urban boys

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separately for boys and girls at both high school and college ages in the CPI manual.

Procedure

Once the schools were selected, the next step was to get permission to use the schools that had been selected. This was generally done by talking to the district director of pupil personnel and explaining what was wanted. In some districts (especially urban) there is a research committee which must approve any projects involving the schools.

After approval was gained at the district level, the principal was contacted and the classes to be used were selected. The teachers were then contacted and dates were chosen to give the tests. Since the test takes from one to one-and-a-half hours to take, and most class periods last 45-50 minutes, half of the test was given one day and the other half was given the next day. All tests were given between February 24 and April 13, 1972. Gough states in his manual that rigorous testing conditions need not be established in order to have the test be valid.

With each class, directions were given by the experimenter. He gave a brief description of the study, saying that it involved the comparison of rural and urban personalities in Utah high school students. They were asked to put their year in school on the answer sheet. If they would rather not put their names on the answer sheet, they did not have to. Each answer sheet was numbered, so that each subject's school could be identified.

The answer sheets were scored by computer, and the results were put on computer cards and analyzed using analysis of variance.

RESULTS

The results have been tabulated with only significant differences reported. Table 2 gives the differences between rural and urban students. In column 1 are the overall differences of boys and girls as a group, and the other columns present the differences for girls separately and then boys. Ten of the eighteen scales showed differences between rural and urban students at $P < .01$, and two more showed differences at $P < .05$. Thus, more than half of the scales of the CPI differed significantly between rural and urban adolescents. With the girls, six scales showed differences at the $P < .01$ level and two more did at the $P < .05$ level. With the boys, eight scales showed differences at the $P < .01$ level and one more did at the $P < .05$ level. The mean scores for rural and urban girls are graphed in figure 2, and the mean scores for rural and urban boys are plotted in figure 3, so that the differences can be more easily seen.

Table 3 shows the differences between boys and girls within the urban group and then within the rural group. In the urban group, four scales showed differences between boys and girls at $P < .01$ level, and two more did at $P < .05$. In the rural group, five scales showed differences between boys and girls at $P < .01$ and four more did at $P < .05$ level.

As may be seen from Table 4, there did not appear to be much difference among sophomores, juniors, and seniors. In the urban group, only one scale showed any differences, and it was only at $P < .05$. In the rural group, two scales showed differences, and these were both at $P < .05$.

Table 2. CPI differences between urban and rural students

	<u>Girls and Boys</u>	<u>Girls</u>	<u>Boys</u>
1 Urban (Do)	$\bar{X}=22.91$ SE=.47	$\bar{X}=23.27$ SE=.67	$\bar{X}=22.51$ SE=.65
Rural	$\bar{X}=20.41$ SE=.42	$\bar{X}=20.76$ SE=.61	$\bar{X}=20.05$ SE=.57
	F=15.81 P<.01	F= 7.68 P<.01	F= 8.02 P<.01
2 Urban (Cs)	$\bar{X}=15.47$ SE=.32	$\bar{X}=15.96$ SE=.46	$\bar{X}=14.93$ SE=.45
Rural	$\bar{X}=13.66$ SE=.29	$\bar{X}=14.17$ SE=.42	$\bar{X}=13.12$ SE=.39
	F=17.43 P<.01	F= 8.16 P<.01	F= 9.26 P<.01
3 Urban (Sy)	$\bar{X}=21.10$ SE=.42	$\bar{X}=21.20$ SE=.60	$\bar{X}=20.94$ SE=.58
Rural	$\bar{X}=19.56$ SE=.37	$\bar{X}=19.70$ SE=.54	$\bar{X}=19.42$ SE=.51
	F= 7.32 P<.01	F= 3.48 N.S.	F= 3.8 N.S.
4 Urban (Sp)	$\bar{X}=32.90$ SE=.51	$\bar{X}=32.70$ SE=.73	$\bar{X}=33.12$ SE=.71
Rural	$\bar{X}=30.16$ SE=.46	$\bar{X}=29.74$ SE=.66	$\bar{X}=30.59$ SE=.63
	F=16.02 P<.01	F= 9.03 P<.01	F= 7.07 P<.01
5 Urban (Sa)	$\bar{X}=19.51$ SE=.35	$\bar{X}=19.47$ SE=.51	$\bar{X}=19.54$ SE=.48
Rural	$\bar{X}=17.86$ SE=.32	$\bar{X}=18.18$ SE=.47	$\bar{X}=17.52$ SE=.43
	F=12.06 P<.01	F= 3.48 N.S.	F= 9.8 P<.01
6 Urban (Wb)	$\bar{X}=28.41$ SE=.59	$\bar{X}=29.28$ SE=.83	$\bar{X}=27.43$ SE=.84
Rural	$\bar{X}=26.40$ SE=.53	$\bar{X}=27.39$ SE=.75	$\bar{X}=25.36$ SE=.74
	F= 6.4 P<.05	F= 2.85 N.S.	F= 3.45 N.S.

N.S. = Nonsignificant at P<.05

Table 2. Continued

	<u>Girls and Boys</u>	<u>Girls</u>	<u>Boys</u>
7 Urban (Re)	$\bar{x}=22.97$ SE=.48	$\bar{x}=24.52$ SE=.70	$\bar{x}=21.24$ SE=.62
Rural	$\bar{x}=22.16$ SE=.43	$\bar{x}=23.72$ SE=.64	$\bar{x}=20.53$ SE=.54
	F= 1.5 N.S.	F= .7 N.S.	F= .7 N.S.
8 Urban (So)	$\bar{x}=31.61$ SE=.58	$\bar{x}=33.16$ SE=.84	$\bar{x}=29.87$ SE=.75
Rural	$\bar{x}=30.29$ SE=.52	$\bar{x}=32.21$ SE=.77	$\bar{x}=28.27$ SE=.66
	F= 2.83 P<.05	F= .69 N.S.	F= 2.05 N.S.
9 Urban (Sc)	$\bar{x}=21.90$ SE=.60	$\bar{x}=23.26$ SE=.88	$\bar{x}=20.38$ SE=.79
Rural	$\bar{x}=20.68$ SE=.54	$\bar{x}=21.70$ SE=.80	$\bar{x}=19.61$ SE=.70
	F= 2.3 N.S.	F= 1.73 N.S.	F= .5 N.S.
10 Urban (To)	$\bar{x}=16.10$ SE=.43	$\bar{x}=16.85$ SE=.59	$\bar{x}=16.265$ SE=.60
Rural	$\bar{x}=14.05$ SE=.38	$\bar{x}=14.93$ SE=.54	$\bar{x}=13.14$ SE=.53
	F=12.84 P<.01	F= 5.82 P<.05	F= 6.96 P<.01
11 Urban (Gi)	$\bar{x}=13.26$ SE=.44	$\bar{x}=14.08$ SE=.62	$\bar{x}=12.34$ SE=.62
Rural	$\bar{x}=12.33$ SE=.40	$\bar{x}=12.48$ SE=.57	$\bar{x}=12.18$ SE=.55
	F= 2.42 N.S.	F= 3.55 N.S.	F= 3.75 N.S.
12 Urban (Cm)	$\bar{x}=21.35$ SE=.43	$\bar{x}=21.95$ SE=.59	$\bar{x}=20.67$ SE=.63
Rural	$\bar{x}=20.58$ SE=.39	$\bar{x}=21.63$ SE=.53	$\bar{x}=19.49$ SE=.56
	F= 1.71 N.S.	F= .15 N.S.	F= 2.0 N.S.

N.S. = Nonsignificant at P<.05

Table 2. Continued

	<u>Girls and Boys</u>	<u>Girls</u>	<u>Boys</u>
13 Urban (Ac)	$\bar{x}=20.54$ SE=.43	$\bar{x}=21.74$ SE=.63	$\bar{x}=19.20$ SE=.57
Rural	$\bar{x}=19.51$ SE=.39	$\bar{x}=20.43$ SE=.57	$\bar{x}=18.55$ SE=.50
	F= 3.15 N.S.	F= 2.38 N.S.	F= .74 N.S.
14 Urban (Ai)	$\bar{x}=16.52$ SE=.35	$\bar{x}=17.19$ SE=.50	$\bar{x}=15.80$ SE=.47
Rural	$\bar{x}=13.93$ SE=.32	$\bar{x}=14.89$ SE=.46	$\bar{x}=12.93$ SE=.42
	F=30.14 P<.01	F=11.39 P<.01	F=20.58 P<.01
15 Urban (Ie)	$\bar{x}=31.26$ SE=.58	$\bar{x}=32.38$ SE=.84	$\bar{x}=30.0$ SE=.79
Rural	$\bar{x}=28.57$ SE=.52	$\bar{x}=29.68$ SE=.76	$\bar{x}=27.41$ SE=.70
	F=11.81 P<.01	F= 5.68 P<.05	F= 6.08 P<.05
16 Urban (Py)	$\bar{x}= 9.92$ SE=.22	$\bar{x}= 9.76$ SE=.32	$\bar{x}=10.1$ SE=.31
Rural	$\bar{x}= 8.65$ SE=.20	$\bar{x}= 8.33$ SE=.29	$\bar{x}= 9.0$ SE=.27
	F=17.75 P<.01	F=10.71 P<.01	F= 7.33 P<.01
17 Urban (Fx)	$\bar{x}= 9.73$ SE=.28	$\bar{x}= 9.83$ SE=.38	$\bar{x}= 9.61$ SE=.41
Rural	$\bar{x}= 8.17$ SE=.25	$\bar{x}= 8.41$ SE=.35	$\bar{x}= 7.92$ SE=.36
	F=17.28 P<.01	F= 7.54 P<.01	F= 9.66 P<.01
18 Urban (Fe)	$\bar{x}=18.84$ SE=.40	$\bar{x}=21.88$ SE=.49	$\bar{x}=15.43$ SE=.38
Rural	$\bar{x}=18.26$ SE=.36	$\bar{x}=21.50$ SE=.44	$\bar{x}=14.90$ SE=.34
	F= 1.16 N.S.	F= .33 N.S.	F= 1.18 N.S.

N.S. = Nonsignificant at P<.05

Table 3. CPI differences between boys and girls

Scale	Urban				Rural			
	Boys	Girls	F	P	Boys	Girls	F	P
7 (Re)	\bar{x} = 21.24 SE= .71	24.52 .67	11.03	.01	20.53 .58	23.72 .57	15.4	.01
8 (So)	\bar{x} = 29.87 SE= .84	33.16 .79	8.18	.01	28.27 .72	32.21 .71	15.2	.01
9 (Sc)	\bar{x} = 20.37 SE= .88	23.26 .84	5.62	.05	19.61 .75	21.70 .73	3.99	.05
10 (To)	\bar{x} = Not significantly different SE=				13.14 .53	14.93 .52	5.77	.05
12 (Cm)	\bar{x} = Not significantly different SE=				19.49 .58	21.63 .57	6.96	.01
13 (Ac)	\bar{x} = 19.20 SE= .63	21.74 .60	8.51	.01	18.55 .54	20.43 .53	6.19	.05
14 (Ai)	\bar{x} = Not significantly different SE=				12.93 .43	14.89 .42	10.76	.01
15 (Ie)	\bar{x} = 30.01 SE= .83	32.38 .79	4.26	.05	27.41 .75	29.68 .73	4.7	.05
18 (Fe)	\bar{x} = 15.43 SE= .47	21.88 .44	100.1	.01	14.88 .40	21.50 .39	143.7	.01

Table 4. CPI differences between sophomores, juniors, and seniors

	Soph.	<u>Urban</u> Jun.	Sen.	Soph.	<u>Rural</u> Jun.	Sen.
Scale 10 (To)				Scale 2 (Cs)		
\bar{x} = 17.40	15.12	17.52		\bar{x} = 12.45	13.36	15.79
SE = 1.5	.56	.74		SE = .68	.52	1.0
F = 3.78		P<.05		F = 3.61		P<.05
				Scale 5 (Sa)		
				\bar{x} = 16.24	18.53	17.64
				SE = .72	.56	1.1
				F = 3.13		P<.05

Within the group of urban students, there were no significant differences found among the three schools. However, in the rural group, significant differences were found, and the data is presented in Table 5. Six of the scales had differences significant at $P<.01$, and two more at $P<.05$, among the three rural schools. Among the rural girls, one scale showed differences at $P<.01$ and two more showed differences at $P<.05$ level.

It was also desirable to determine whether any of the four groups of scales (see Figure 1) differed significantly between rural and urban adolescents. The raw scores cannot be compared from scale to scale (i.e. a raw score of 15 on one scale is different from a raw score of 15 on another scale). Thus the mean score for rural and for urban adolescents

Table 5. Scales of the CPI showing differences within rural schools

Scale	B O Y S					G I R L S					
	Schools			F	P	Schools			F	P	
	4	5	6			4	5	6			
4 (Sp)	\bar{x} = SE=	32.84 .86	28.61 1.2	27.62 1.4	7.11	.01	Not significantly different				
5 (Sa)	\bar{x} = SE=	27.85 .99	23.68 1.3	21.33 1.6	7.08	.01	Not significantly different				
8 (So)	\bar{x} = SE=	29.94 .89	28.00 1.2	24.29 1.4	5.58	.01	Not significantly different				
9 (Sc)	\bar{x} = SE=	Not significantly different					23.00	19.07	23.83	3.38	.05
10 (To)	\bar{x} = SE=	14.60 .67	11.35 .89	11.95 1.1	4.95	.01	Not significantly different				
12 (Cm)	\bar{x} = SE=	21.47 .78	19.42 1.0	14.38 1.3	11.46	.01	Not significantly different				
13 (Ac)	\bar{x} = SE=	19.78 .65	17.65 .86	16.67 1.0	3.96	.05	Not significantly different				
15 (Ie)	\bar{x} = SE=	29.42 .97	26.55 1.3	23.43 1.6	5.56	.01	Not significantly different				

Table 5. Continued

Scale	<u>B O Y S</u>					<u>G I R L S</u>				
	Schools			F	P	Schools			F	P
	4	5	6			4	5	6		
16 (Py)	\bar{x} = 9.64	8.52	7.95	3.62	.05	8.38	7.57	9.61	3.97	.05
	SE= .36	.48	.59			.41	.43	.58		
17 (Fx)	\bar{x} =	Not significantly different				10.02	7.07	7.57	8.83	.01
	SE=					.51	.54	.73		

on each scale was converted to a standard score, so that groups of scales could be compared.

The results of the comparison between rural and urban adolescents on the four groups of scales are shown in Table 6. As will be seen, all four groups of scales showed differences between the rural and urban students tested, two of them at the $P < .01$ level and the other two at the $P < .05$ level.

Table 6. Differences between rural and urban adolescents by classes of scales of the CPI

	<u>Rural</u>	<u>Urban</u>
Class 1	$\bar{\chi} = -0.86$	1.00
	SE = 0.32	0.35
	F = 14.61	P < .01
Class 2	$\bar{\chi} = -0.44$	0.55
	SE = 0.26	0.29
	F = 6.34	P < .05
Class 3	$\bar{\chi} = -0.58$	0.72
	SE = 0.17	0.19
	F = 26.01	P < .01
Class 4	$\bar{\chi} = -0.15$	0.18
	SE = 0.88	0.98
	F = 6.44	P < .05

DISCUSSION

The data collected in this study has been used for several things other than what the original plan called for. The primary problem of the study was to determine if personality differences exist between rural and urban adolescents in Utah. Secondly, the data was used to see what differences existed between the boys and girls tested and what differences there were among sophomores, juniors and seniors. These secondary problems shall be discussed following a discussion of the primary problem.

As may be noted in the preceding section, many of the scales of the CPI showed significant differences between the rural and urban adolescents tested. With the boys and girls combined, ten of the eighteen scales showed differences at the $P < .05$ level. In each case where differences were found, the differences favored the urban students.

That the differences favored the urban students seems to be at variance with the results of the Hathaway, Monachesi and Young (1959) study. In that study the MMPI was used to measure personality characteristics, and the differences found favored the rural students. Since the CPI is in many ways similar to the MMPI (with nearly half of its items coming from the MMPI), it was hypothesized in the present study that if significant differences were found, these differences would favor the rural students. It is interesting that such a discrepancy between findings should show up. Why should such a discrepancy be found? It may be that more of those with favorable personality traits have moved (probably slowly) from the rural areas to urban areas.

Another possible reason for the discrepancy may be that the adolescent personalities between Utah and Minnesota are very different. Or it is possible that the CPI and the MMPI measure very different characteristics. Whatever the reason for the discrepancy, it is interesting and significant that the discrepancy showed up.

In discussing the results of this study, let us first consider the scales in which no differences were found. No significant differences were found on scale 7 (Responsibility), scale 9 (Self-Control), scale 11 (Good Impression), scale 12 (Communality), scale 13 (Achievement Via Conformance), and scale 18 (Femininity). All but the last scale seem to have a common theme: a measure of the ability to control self and create a favorable impression; i.e. to "look good" and act in the socially acceptable way. These abilities appear to be found equally in rural and urban adolescents.

Let us now turn to the areas of difference between rural and urban adolescents. In each case of difference, the difference favored the urban adolescent. Differences were found on scale 1 (Dominance), scale 2 (Capacity for status), scale 3 (Sociability), scale 4 (Social Presence), scale 5 (Self-Acceptance), scale 6 (Sense of Well-Being), scale 8 (Socialization), scale 10 (Tolerance), scale 14 (Achievement Via Independence), scale 15 (Intellectual Efficiency), scale 16 (Psychological-Mindedness), and scale 17 (Flexibility). The reader is invited to turn to Figure 1 to see a more detailed presentation of each scale, its purpose, and how high and low scores tend to be viewed as. However, a common note to many of the scales in which the urban students scored higher than the rural may be included under the notion of "self-concept."

Basically a person's self-concept is his perception of himself; i.e. how he thinks others feel about him.

It is the writer's hypothesis that the urban adolescent has a better self-concept than does the rural adolescent. Many of the scales which showed differences tend to point to this conclusion. Thus some of the scales indicate that the urban students tend to be seen as self-accepting, free from self-doubt, accepting of and responsive to others, nonjudgemental, flexible and adaptable, dominant, having capacity for status, are outgoing and participative, show initiative and independence and have broad interests.

A person who knows himself and accepts himself for what he is can be less self-centered and be more "other"-centered. The urban adolescents in this study appeared to have the edge on the rural adolescents in regard to self-concept.

Just why the urban adolescents show more positive personality characteristics than the rural adolescents is not known. Maybe persons who have greater ability have left the farm. Those with motivation and drive may have moved to "greener pastures" in the city. Perhaps only those who "don't make it" (in college; in the city) go back to the farm. Thus there may be a selection factor operating. Or is there something "inherent" to urban life which develops more positive personality characteristics?

Whatever the reasons, there appears to be something about urban life which develops more positive personality characteristics in adolescents than does rural life (at least in Utah). It would be valuable to give rural adolescents some special help to aid them in developing positive personality characteristics.

An examination of the data in Table 2 shows that the F value for the boys and girls group was often fairly equally divided between the separate boys and girls groups. Often the girls F plus the boys F equals (approximately) the F of the boys and girls groups combined. This relationship does not always hold true, but it appears to be a fairly accurate generalization.

That more scales did not show differences between the girls and boys was somewhat surprising. In the urban group, only six scales showed significant differences--four at the .01 level (scale 7 Responsibility, scale 8 Socialization, scale 13 Achievement Via Conformance, and scale 18 Femininity) and two at the .05 level (scale 9 Self-Control, and scale 15 Intellectual Efficiency). In the rural group, five scales showed differences at the .01 level (scale 7 Responsibility, scale 8 Socialization, scale 12 Communality, scale 14 Achievement Via Independence, and scale 18 Femininity) and four at the .05 level (scale 9 Self-Control, scale 10 Tolerance, scale 13 Achievement Via Independence, and scale 15 Intellectual Efficiency). Thus in the rural group only one half of the scales showed significant differences, and only one third of the scales showed differences within the urban group. In each case where significant differences were found, the differences favored the girls.

Another surprising result was the lack of differences among sophomores, juniors and seniors. What differences were found were only at the .05 level. In the urban group, only one scale showed differences (scale 10 Tolerance), and in the rural group only two scales showed differences (scale 2 Capacity For Status, and scale 5 Self-Acceptance). One may guess that more differences might be found. In the CPI manual,

Gough (1969) presents separate norms for high school ages and for college ages, thus implying that differences might be found among different age groups.

One limiting factor on the present study is that the rural group was not as homogeneous as it should have been: significant differences were found among the three schools tested. The girls showed three scales different, one at $P < .01$ (scale 17 Flexibility) and two at $P < .05$ (scale 9 Self-Control and scale 16 Psychological-Mindedness); the boys were different on eight scales, six at $P < .01$ (scale 4 Social-Presence, scale 5 Self-Acceptance, scale 8 Socialization, scale 10 Tolerance, scale 12 Communality, and scale 15 Intellectual Efficiency) and two at $P < .05$ (scale 13 Achievement Via Conformance and scale 16 Psychological-Mindedness). Thus the rural group had so many differences within the group that it limits the generalizability of the results. It is interesting, though, that the urban group showed no significant differences within the group.

Based on the rural-urban differences found on individual scales, it is not surprising that the classes of scales also showed significant differences between rural and urban adolescents (two were significant at $.01$ and two were significant at $.05$). In each case, the differences favored the urban students.

The standard error (SE) of each mean has been presented in the tables throughout this report. In some cases it is quite high, but it is interesting that the standard errors are quite similar for each pair of means being compared. Most of them are within a few hundredths of each other.

For the sake of brevity, only significant differences ($P < .05$) have been reported.

There are several limiting factors to the present study. One was mentioned earlier in this section dealing with the lack of homogeneity among the rural schools. A greater number of rural students should have been tested. Ideally, it would be advantageous to test from a great number of schools with students selected randomly in each school.

Another limiting factor was that in the urban schools, the schools were not selected randomly nor were the classes. The schools were selected to be representative of the urban population. This may have been acceptable, though perhaps more schools should have been utilized. However, the students (or classes) to be tested should have been randomly selected. This was impossible for the researcher because of the "politics" involved (gaining permission from student, parent, teacher and administrator) and the time and money involved.

The validity of the study would also have been increased by administering a battery of tests rather than only the CPI. Perhaps a measure of self-concept should have been included. In view of the results of the present study, it may have been valuable to administer the MMPI along with the CPI as a check to see if the two tests do indeed assess different personality characteristics.

Further research might try to utilize some of the ideas mentioned here to find if personality characteristics differ between rural and urban adolescents in Utah.

SUMMARY AND CONCLUSIONS

The present study was done to determine whether or not there are personality differences between rural and urban adolescents in Utah. A widely used personality measure, the CPI, was used to determine if differences do exist. The CPI has eighteen scales which are grouped into four classes. The study was done to see if differences exist, not to explain why the differences might exist. It was beyond the scope of this study to determine if differences really do exist in Utah adolescents or if the differences reflected inadequacy of the CPI.

Three-hundred-ninety-five high school students in Utah (one-hundred-seventy-six urban and two-hundred-nineteen rural) were given the CPI. Mean scores were obtained on each scale for urban and for rural boys and girls which were analyzed to see if they were significantly different. The mean scores were converted to standard scores for comparison of the four groups of scales.

Twelve of the eighteen scales showed significant ($P < .05$) differences between rural and urban adolescents, with the differences favoring the urban students. All four of the classes of scales showed significant ($P < .05$) differences, again favoring urban students.

Further analysis of the data showed some differences in mean scores between boys and girls, among sophomores, juniors, and seniors, and among the three rural schools tested. No significant differences were found among the three urban schools.

Since the CPI is considered to be a fairly valid test, the differences found are assumed to be real differences between urban and rural

adolescents in Utah. However, this assumption may not be justified. Based on the assumption, though, it is the conclusion of the present study that there are significant differences between rural and urban adolescents in Utah, that these differences favor the urban adolescents, that the urban group is more homogeneous than the rural group, and that there are significant differences between boys and girls among sophomores, juniors and seniors.

There are several recommendations from the results of this study. It would be useful to replicate the study, using the CPI and the MMPI to find whether the two tests do indeed measure different factors of personality. Such a replication would shed more light on the apparent discrepancy between the present study and the Hathaway, Monachesi, and Young (1959) study. This recommendation would be valuable for theoretical reasons, but there are also several practical recommendations.

Since the urban students tend to have more positive personality characteristics than the rural, the rural students could be at a distinct disadvantage when in direct competition with urban students. Thus it would be useful to develop a "remediation" program for the area of personality improvement as rural adolescents enter the "urban society." The program should include sections to improve such things as the rural student's self-acceptance, sense of well-being, tolerance, flexibility, and achievement via independence (as discussed in the previous section). The university setting is one where such a program should be implemented. There may be other settings in which this type of program would be valuable. It is not known whether this program would be needed for all rural adolescents, or only for those who enter the more urbanized society.

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