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OPEN AND CLOSED STRUCTURES*

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In developing the broader implications of our study of "stratified associations in an urban community", we stumbled upon a promising but rather speculative line of thought that we would like to explore with you today. The propositions we are going to discuss are of a social psychological nature--in the sense that we are looking for the psychological effects of social conditions--but they begin with and return to social interaction variables. It is useful to start by making an analytic distinction between "social psychological" propositions per se and propositions having to do with what might better be called "cultural psychology". The latter deals with the more or less explicit transmission of ideas and values. The former, that is, social psychological propositions in the more literal sense, have to do with the creation of psychological processes or psychological content as a direct result of the social situation in which a man currently exists.

According to this distinction, when we speak of working class sons acquiring low educational aspirations from their parents--or failing to acquire high educational aspirations--we are usually talking in terms of cultural psychology. We are speaking of the transmission of values from one set of persons to another. On the other hand, when W. Robertson Smith suggested that early Semitic conceptions of God as father and God as king reflected, and grew out of, the kinship and state-ship social relations which were the intimate experience of men in those times, he spoke as a social psychologist.¹ The preëminent social psychologist in this special but

important sense, of course, was Emile Durkheim. He, perhaps more than anyone else, looked to social structural situations as the source of psychological structuring. Several of Durkheim's key ideas are particularly suggestive for our argument.

In his classic study, Suicide,² Durkheim formulated hypotheses intended to account for the differential distribution of suicide among various population groups by examining the nature of the individual's relationship to the social structure in which he was implicated. In altruistic suicide, for example, the person was so deeply implicated in his social group that he could be induced to commit suicide for the sake of his group or because he had dishonored it in some way. In egoistic suicide, on the other hand, the individual's relationship to the social structure was fundamentally attenuated; and in anomic suicide his social structure was essentially in a state of normative disintegration that no longer provided adequate controls for his desires. Basically Durkheim regarded certain psychological states as being direct reactions to certain fundamental social structural states. This notion of a structural parallelism between social and psychological states may be termed "structural isomorphism".³ We may suspend for the moment our judgment as to whether Durkheim was correct in assuming that the social structure caused the psychological state or whether other mechanisms, such as selectivity of entry into certain types of social structures, might also be operative.

In the Division of Labor,⁴ Durkheim distinguished between two fundamental ways in which a social structure may be integrated: mechanical and organic solidarity. In a mechanically integrated structure, integration is based on the fact that all the units are fundamentally alike; while in an organically integrated structure, integration is based on the interdependence of the functionally differentiated units.

More recent sociological research, focusing on the micro-structure of society rather than its global characteristics, has shown the relevance of intimate associational networks for the formation and support of selected attitudes and behavior. Berelson, et al., for example, in their classic study of voting behavior in Elmyria, New York, showed the relevance of similarity or dissimilarity of friends' vote intention on ego's vote intention.⁵ Laumann has shown elsewhere that the degree of homogeneity of the intimate associational network of the individual (in terms of the similarity or dissimilarity of the occupational statuses of friends, neighbors, and kin) is related to a number of class, status, political and economic attitudes.⁶ In sum, there have been a number of sociological studies that have recognized the significance of differential involvement in closed (or mechanical or homogeneous) social structures and open (or organic or heterogeneous) social structures in explaining certain psychological processes.

The relevant psychological literature is also quite voluminous; but, for our purposes, ideas developed in Goodwin Watson's work on Fair-Mindedness in the early part of the

century are especially pertinent.⁷ A more recent statement by Milton Rokeach develops this same line of thought by drawing a fundamental distinction between an open-minded and a closed-minded personality system. We may very briefly paraphrase Rokeach's characterization of open-mindedness--closed-mindedness as follows:

The distinction rests on the extent to which the person can receive, evaluate, and act on relevant information received from his environment on its own intrinsic merits, unaffected by irrelevant factors arising from within himself or from his environment. Examples of irrelevant internal pressures that interfere with the realistic reception of information are unrelated habits, beliefs, and perceptual cues, irrational ego motives, power needs, and the need for self-aggrandizement. By irrelevant external pressures we have in mind most particularly the pressures of reward and punishment arising from external authority; for example, as exerted by parents, peers, and social and cultural norms.⁸

Combining these theoretical perspectives, we would like to argue that there is a structural isomorphism between social systems and personality systems at the abstract level of organization with regard to their degree of openness to the larger environment. Our general hypothesis states that:

- (1) The more closed the associational network (social structure) in which a person is implicated, the more likely that he is to be closed-minded. The more open the associational network in which he is implicated, the more likely he is to be open-minded.

Perhaps the fourfold table in Figure 1 can serve to clarify the discussion. Cells 1 and 4 are predicted on the basis of the hypothesis of structural isomorphism. That is, we would expect that people involved in intimate associational

FIGURE 1

		Minded	
		Open	Closed
Social Structure	Open ("Organic")	1. Predicted as most common combination	2. Socially mobile persons ("error cell")
	Closed ("Mechanical")	3. Academic community, educated elite ("error cell")	4. Predicted as most common combination

networks that are highly heterogeneous in terms of, say, educational attainments or ethnic backgrounds to be those who are relatively low in dogmatism or opinionation and have a high psychological tolerance for ambiguity. On the other hand, people who are involved in intimate associational networks that are highly homogeneous in terms of educational attainment or ethnic position will be those who are relatively high in dogmatism and have a low tolerance for ambiguity.

What we are doing here is simply generalizing, developing, and stating formally for purposes of empirical testing some rather common assumptions of social scientists. It is in the isolated and homogeneous villages of the world where men suppose that there is only one truth, one norm, one right way of doing things. It is in the great urban centers of the world where the stranger becomes commonplace, where novelty comes to be expected, and where many truths must live side by side. In these colorful and heterogeneous centers,

even the lowliest man becomes a kind of "cosmo-politan"--that is, a citizen who belongs to the great world. Such a man comes to tolerate the existence of diverse ideas and ideologies, and though on occasion he may seek artificial uniformity by following a Calvin or his modern-day equivalent, the dominant trend is toward the development of minds that mirror the de facto tolerance of the metropolitan social structure. Indeed, this is the very argument often made by sociologists in explaining the differential tolerance of urban as against rural areas in America.⁹

What we are doing is transposing this classic rural-urban dimension into another key by investigating individual differences within the city along the same theoretical continuum. At one end we expect to find persons who, despite living in the city, manage to maintain a high degree of homogeneity in their actual patterns of association. They are, as a recent title puts it, "urban villagers".¹⁰ At the other pole will be persons who--for whatever reason--are involved in a network of associations that brings them into close contact with individuals from backgrounds and current statuses very different than their own. We look for the same type, though not necessarily the same level, of effect within the city as has been found by social scientists between the city and the village.

We also have some predictions about the individuals who fall into the two error cells in this table--that is, we do not expect those who do not fall into Cells 1 and 4 to be

distributed randomly between error cells 2 and 3. Cell 2 should be disproportionately recruited from the socially mobile who often report highly divergent status contacts arising out of their discrepancy between origin and destination status, but who have been described as more prejudiced, over-conforming, and rigid than persons who have not experienced social mobility.¹¹ In the case of cell 3, we expect that persons who have very homogeneous associational networks but are open minded to be among the educated elite. The prototype is the academic community which, as we all know, tends to confine intimate associations within itself (i.e., a very closed structure) but permits members to experience vicariously many different sorts of contacts and rewards open mindedness. Within ivy walls, the English professor reads Faulkner and Hemingway and Baldwin, broadening his Weltanschauung without leaving his study. Perhaps a simpler explanation is that these persons are selected for high intelligence which enables them to handle without difficulty considerably more complex cognitive differentiations than persons of less intellectual endowment.

There are essentially two types of models that could account for the relationship between open and closed mindedness and open and closed social structures, if such a relationship may actually be shown to exist. The first model, which we shall call the "self-selectivity model", would describe the process as follows: a closed-minded individual with low psychological tolerance for ambiguity and disagreement

his appropriate attitudes and behaviors and is sustained in them are manifold. One of particular and well recognized importance is subsumed under the generic term: social influence.¹³

Three additional hypotheses were developed in an effort to elaborate and specify some aspects of associational networks that might be involved in "explaining" why open and closed mindedness as an individual attribute is associated with different types of social structures via their effects in facilitating or hindering the processes of social influence. First, we hypothesize that:

- (i) The degree of homogeneity of status attributes of a set of individuals will be positively related to the likelihood of persons being known and mutually attracted to everyone else in the network.

That is, in a heterogeneous open structure we would expect a radial system in which intimate interaction is conducted only between pairs (ego and another alter) and there is no common interaction among all the alters inasmuch as they are likely to differ very much from one another, making common definitions of the situation and common intimacy for the set of individuals difficult to establish. The basis of friendship for a given pair is likely to be on some more specialized basis (e.g., a common interest in chess, sports, etc.) than is typically implied by the given status attributes of ego and alter. Pair-wise interaction probably raises the fewest problems of integration for ego with such a highly differentiated set of alters. On the other hand, in a closed or homogeneous social

structure where all the participants are fundamentally alike in at least one major respect, the problems of establishing consensus on important issues is far less acute; moreover, the likelihood of all alters knowing each other and being mutually attracted to one another is high.¹⁴ We shall call such an interaction network a maximally linked or interlocking system.

Secondly, we hypothesize that:

- (ii) The degree of affective involvement will vary according to the type of associational network.

High emotional involvement, commitment, and intimacy should characterize the relations of members of interlocking networks because the development of intimacy is facilitated when persons share an extensive, common set of values, interests, and concerns.¹⁵ Persons in interlocking networks are likely to share this common focus because of the similarity in their status attributes. People in open or radial networks, on the other hand, are likely to have a relatively lower affective involvement and commitment to their relations with alters because the set of common interests and concerns is likely to be more severely circumscribed and limited by virtue of the differing statuses comprising the networks. The exchange of intimate information about oneself is more problematic when there is uncertainty about the evaluative standards that may be employed by alter who is different from ego in important social respects. Persons of very different status attributes are likely to have differing standards for evaluating the same information. Consequently, relations in open structures

are likely to be more instrumentally oriented and functionally specific; while relations in closed structures are likely to be more consummatory and functionally diffuse.¹⁶

Finally, we reasoned that the successful maintenance of an open structure is inherently more difficult and complicated for the individual than the maintenance of a closed structure because of the need to balance conflicting demands and expectations. Consequently, we hypothesize that:

- (iii) Holding educational attainment constant, persons in radial structures are likely to have higher intellectual ability or capacity than persons in interlocked structures.

To test this proposition, we have obtained a measure of each respondent's intellectual functioning, so far as this was possible in the limited time available, by administering the 13-item Similarities Subtest of the Wechsler Adult Intelligence Scale.¹⁷

If these three subsidiary hypotheses prove correct, we further argue that networks having high emotional involvement for the individual, a relatively monolithic set of expectations (due to the commonalities of the components), and high frequency of contact would be more successful mechanisms of social influence than those that are "disorganized" with respect to given social perspectives or relatively lacking in personal involvements. In short, the formal properties of the interaction networks (radial vs. interlocking, status homogeneous vs. heterogeneous, etc.) may set important constraints and directions on the processes by which a person learns his perspectives of the world.

Needless to say, on the basis of cross-sectional sample data at one point in time, we may not be able to determine which of these two models "explaining" the relationship between open and closed social structures and open and closed mindedness is principally responsible for our results. Probably each model is operable under different conditions.

SOURCE OF THE DATA

During the spring and summer of 1966, interviewers from the University of Michigan Detroit Area Study conducted 85-minute interviews with a probability sample of 1,013 native-born, white men, between the ages of 21 and 64, in the greater metropolitan area of Detroit.¹⁸ In addition to such standard background information as current occupation and income, educational attainment, ethnic origin, and religious preference, we asked these men for detailed information on their three closest friends. The information ranged from the friends' occupations, educational attainments, ethnic origins, religious preferences, ages, and political party preferences to the durations of friendship ties, customary places of meeting friends, and frequencies of contact. We also determined the extent to which the alters mentioned knew one another so that we could characterize the extent of the linkages among the set of friends and the respondent. In addition, we asked the respondent a series of attitudinal questions designed to measure open and closed mindedness.

THE RESULTS

The report of our results will be divided into three sections. The first will be devoted to a brief description of the method by which we undertook to measure open and closed mindedness and of the characteristics of the resulting scale(s), as well as a brief characterization of the differential distribution of the scales on a variety of demographic and social characteristics of the sample. The results of this analysis will suggest the kinds of controls we must use in examining the relationship of open and closed mindedness to our major theoretical variables. The second section will be addressed to describing (1) the ways we measured the homogeneity-heterogeneity of the intimate associational network in terms of four status dimensions (viz., educational attainment, occupational status, ethnic origin, and religious preference) and the radial or interlocking character of the networks, and (2) the differential distributions of these attributes of the networks on selected demographic and social characteristics of the respondents. In the final section, we shall turn to an empirical evaluation of our central hypothesis regarding the relationship between open and closed social structures and open and closed mindedness.

SECTION ONE: The Method of Measuring Open and Closed Mindedness and Its Differential Distribution in the Sample

We tried to measure open and closed mindedness primarily by developing an approach which has its roots in Watson's

notion of Fair-Mindedness, and which may be of special value to contemporary sociologists. Many of you will recall that Samuel Stouffer in his classic study of Communism, Conformity, and Civil Liberties in 1954, developed a very useful unidimensional scale that he called "Willingness to Tolerate Non-Conformists". Actually the title is something of a misnomer, for the scale consisted only of items dealing with tolerance toward Communists, suspected Communists, and others generally regarded as "leftist". Non-conformists of a "rightist" character were not included in the scale.

What we have done is to select five of these Stouffer items on the basis of past statistical performance and current appropriateness, and have added five exactly parallel items dealing with the Ku Klux Klan. (Admittedly the Klan is not a perfect opposite to the Communists, but after careful consideration it seemed the best available "rightist" equivalent for use with the general population, which is probably more familiar with the Klan and its characteristics than with any other rightist organization, such as the John Birch Society or the Minutemen. Only one and a half per cent of the sample gave a clearly incorrect description of the KKK (e.g., it stands for the integration of Negroes into the wider society). In half our interviews we asked about Communists first and in half about Klansmen first, so as to control for order effects.

At this point it will be useful to read the items included in the scale and to indicate basic response distributions.

Per Cent Distribution of Intolerant Responses for the 5-Item Tolerance for Communist Scale and the 5-Item Tolerance for Ku Klux Klansman Scale (N = 1,013).		
	Communist Set	KKK Set
1. Suppose there is a man who admits he is a Communist (KKK). Suppose this admitted Communist wants to make a speech in your community. Should he be allowed to speak, or not? Unqualified no (intolerant position)	44.2	30.0
2. Should an admitted Communist be put in jail? Unqualified yes or deport (intolerant position)	28.9	8.9
3. Suppose he is a teacher in a high school. Should he be fired, or not? Unqualified yes (intolerant position)	60.2	35.3
4. Suppose he is a clerk in a store. Should he be fired, or not? Unqualified yes (intolerant position)	24.7	9.8
5. Now I would like you to think of another person. A man who has been questioned by a Congressional Committee about his suspected Communist sympathies, but who swears under oath he has never been a Communist. Suppose he is a teacher in a high school. Should he be fired, or not? Unqualified yes (intolerant position)	14.7	8.1

From the above, we can readily conclude that this sample is considerably more tolerant of the Klansman than of the Communist.

There is, however, a generally moderate correlation ($C = .35$; $r = .43$) between the two attitude scales, as Stouffer presumably would have expected. That is, persons who are relatively tolerant toward one "extremist" tend to be tolerant toward his opposite number. Nevertheless, it is important to emphasize that there are many men in the sample who are quite tolerant toward one and yet intolerant of the other. Tolerance-intolerance then is by no means a perfectly unidimensional attitude--this fact must be taken into account in our subsequent analysis.

We propose to define tolerance for non-conformity--or what we now prefer to call open-mindedness--as the willingness of a person to extend basic civil liberties to representatives of both political extremes. Closed mindedness involves, depending on one's own political leanings, the rejection of basic freedoms for one or both of the extreme positions. It will also, of course, be possible to differentiate further here, but our theoretical intent at present lies in the formal distinction of open- and closed-mindedness. By this counter-extrapolation of the Stouffer items we believe that we have operationalized the distinction in a way that has a good deal of face validity. We allow a respondent to demonstrate the way his mind works, at least in the broad area of social-political freedoms.

If we can consider tolerance for Communists and tolerance for Klansmen as two distinct attitudes, then we can theoretically identify four types of men: (1) those who are extremely

tolerant toward both Communists and Klansmen (the "open-minded"), (2) those who are intolerant of both (the "close-minded"), (3) those who are tolerant of the Communists but intolerant of the Klansmen, and (4) those who are tolerant of the Klansmen but intolerant of the Communists. We scored the five items in each set by assigning a "1" for a completely tolerant answer, "2" for a qualified tolerant or intolerant answer or a "don't know", and "3" for a completely intolerant answer; summing the five responses; and dividing by five to determine the average answer for that respondent. Since the same five items were asked about each attitude object, it seemed justifiable to regard scores on each scale as directly comparable to one another. In order to sharpen the contrasts among subgroups, we deleted all individuals who had average scores between 1.4 and 1.7 on either (or both) scales. Table 1 summarizes the distribution of individuals on these two scales when cross-tabulated against one

Insert Table 1 about here.

another. One can readily see that although we theoretically expected four subgroupings, we empirically found only three groupings sufficiently large to permit further statistical analysis. The "open to Communist, but closed to Klan" group of 13 is too small and must, unfortunately, be deleted from further consideration.¹⁹ For our sample and cutting points, there is practically no one tolerant of Communists but not of the Klan.

A number of studies have accumulated over the years demonstrating the differential distribution of tolerance, however measured, by a variety of demographic and social-economic characteristics of the population.²⁰ We know, for example, that tolerance as ordinarily measured is disproportionately found among the better-educated segments of the population. Consequently, before turning to an assessment of our hypothesis, we must determine the potentially confounding effects of these variables on our results. Table 2 presents the cross-tabulation of our dependent variables of open and closed mindedness, tolerance for Communists, and tolerance for Klansmen by various demographic and socio-economic characteristics of our sample. Table 3 summarizes these detailed breakdowns with Pearsonian

Insert Table 2 and 3 about here.

and eta coefficients.

We already know that our two separate scales are positively correlated to a moderate degree. That is, willingness to extend civil liberties to out-groups seems to over-ride ideological preference for one or the other of the two groups. This suggests that the scales will be related in much the same way to standard background variables. Tables 2 and 3 bear this expectation out in all major respects. There is a tendency for background variables to be less highly related to the KKK scale than to the Communist scale, even though directionality is always the same. These differences in magnitude, however,

are largely a function of the greater variance of the Communist scale.

In addition to the usual background variables, we have included a measure of verbal aptitude. Despite the fact that the educational attainment of the respondent and his score on the Similarities Test (drawn from the Wechsler Adult Intelligence Test) are fairly highly correlated ($r = .56$), it is important to note that they appear to operate somewhat independently of one another as their effects do not disappear when one, say education, is held constant in examining the relationship of the Similarities test scores with the dependent variables. Although the Pearsonian correlations for age are significant, they disappear when educational attainment is introduced as a control. These results suggest that we should routinely control for educational attainment of the respondent when examining our central hypotheses.

SECTION TWO: Measuring Open and Closed Structures and Their Differential Distribution in the Sample

There are many complexities, both substantive and statistical, in operationalizing the conception of open and closed social structures. We have attempted two equally justifiable approaches. On the one hand, we focus on social interaction: a person's intimate associational network is regarded as "closed" when it forms a primary group with all or most of the participants known to and friends of one another (what we have called an interlocking network), and as "open" when none of the three friends mentioned by the respondent know or are friendly

with one another (what we have called a radial network). On the other hand, we can focus on similarity in social attributes: an individual's network is termed "closed" when all the participants are completely homogeneous with respect to a given status attribute (such as educational attainment, occupational status, ethnic origin, or religious preference) and as "open" when all the participants are heterogeneous with respect to a given status characteristic.

For some people the fact that all their close friends are Protestants like themselves or German in origin is more important to them than that they be of comparable educational attainment or occupational status. Others may find similarities of educational attainments or occupational statuses the crucial basis of intimacy, while disregarding similarity of ethnic backgrounds or religious beliefs. In the latter case, there may even be an agreement among the friends not to discuss religious beliefs as "they are a matter of personal conscience and shouldn't come between friends". The selection of these four status dimensions for particular attention (rather than some others) was made on the grounds that they have been repeatedly shown to be highly associated at the individual level with the differential distribution of values, attitudes, and behavior in the general population.

Of course, we can expect the homogeneity-heterogeneity of the networks and the radial-interlocking structure of the networks to be differentially distributed in the population in terms of selected social and demographic characteristics. It

is especially likely that homogeneity of status attributes of friends will be disproportionately found at the top and bottom of the status hierarchy because of "edge effects", i.e., persons at the top of the status ladder can only choose friends of the same or lower social status and, conversely, persons at the bottom can choose only friends of the same low status or higher status.²¹ People in the middle have both upward and downward as well as lateral choice possibilities. Table 4 summarizes the differential distribution of homogeneity-heterogeneity of status attributes by selected demographic and social characteristics;²² Table 5 presents the same information for interlocking-radial networks.

Insert Tables 4 and 5 about here.

Although there are many tantalizing and important results to be found in Table 4 that would justify an extended analysis in their own right, we must confine our comments to several highlights. Men 50 years old and older appear disproportionately to have friends of higher educational and occupational status than themselves--this result may ultimately be traced to the tendency of older men to report their sons and sons-in-law, who are on generational grounds of higher educational and occupational status, as their closest friends. Men with middle-class identification tend to have educationally and occupationally more heterogeneous networks than men of working-class identification who are involved in more homogeneous

networks or report friends of higher status than themselves. With regard to educational attainment, one can readily detect in the third panel of the table the edge effects mentioned above. College graduates and postgraduates tend to have educationally and occupationally more homogeneous networks. Men of the lowest educational attainment are very likely to report friends of higher educational attainments--this tendency, however, is sharply curtailed for occupational homogeneity. Generally speaking, there are no detectable differentials in the distribution of the men on the ethnic and religious homogeneity measures when age, subjective class-identification, educational attainment, similarity test score, family income, or political party preference are considered. However, there are some differentials when religious preference is examined. Protestants are unlikely to be involved in networks consisting of friends of lower educational attainment than themselves, while Catholics are more likely to be in such networks. Furthermore, Protestants are more likely to be in homogeneous ethnic networks than Catholics--a rather surprising finding given much "received opinion".

With regard to Table 5, it is noteworthy that while there are no significant differences between interlocking and radial networks with regard to their distributions on age, subjective class-identification, educational attainment, family income, and occupational status, there are differences in their distribution on religious preferences (Protestants are much more likely to have radial networks than Catholics),

party preference (generally stronger party identification is associated with interlocking networks),²³ and Similarities scores (interlocking networks are found more commonly among those of below average performance on this test ($r = .10$)). This last finding provides supporting evidence for Hypothesis iii, discussed above, which held that persons in open networks are likely to have higher intellectual ability than persons in closed networks. This result is especially interesting as we found no significant relationship between interlocking-radial networks and educational attainment although, as noted above, educational attainment and scores on the Similarities test are themselves rather highly correlated ($r = .56$). With regard to ethnic identification, men of British, American, German, and northwestern European origin appear to be disproportionately found in radial networks; while men of Irish, Polish, and Italian extractions seem to be underrepresented in such networks. But this patterning disappears when religious controls are introduced.

Ideally we would hope that our measurement of the homogeneity-heterogeneity of the status attributes of network members would be positively related to the interlocking vs. radial structure of the network and, in this sense, either type of measure could then be substituted for the other as a measure of closed or open social structures. Indeed our discussion of Hypothesis i provided a rather elaborate rationale for such an expectation. Unfortunately, the evidence indicating the predicted relationship between

interlocking-radial networks and our various measures of homogeneity-heterogeneity is rather weak and inconclusive. The correlation between the number of friends with the same ethnic background as the respondent and interlocking-radial networks is .10 ($p < .05$), while the correlation between the number of friends of the same religious preference and interlocking-radial network is only .05 (not significant). While the relationship between homogeneous and pure heterogeneous educational networks and interlocking-radial networks just fails to achieve significance (one-tail) for the whole sample and for the subgroup of high school graduates, it is in the predicted direction. (See Table 6.) There is no

Insert Table 6 about here.

observable patterning of occupational homogeneity with interlocking-radial networks.²⁴

The very weakness of the relationship between homogeneity and interlocking-radial networks, if there is one at all, implies that we cannot justifiably regard one measure as a simple alternative measure of open-closed social structures substitutable for the other. In the following analysis section, we shall examine the relationship of the interlocking-radial and the homogeneity-heterogeneity measures to our dependent variables for the entire sample and for three subcategories of respondents whose educational attainments are relatively more homogeneous. Happily, however, we must

consider only two of the four homogeneity-heterogeneity measures because the ethnic and religious measures are moderately correlated ($r = .28$) and the educational and occupational measures are also modestly related to one another ($r = .31$). We, of course, did examine each of the four measures against the dependent variable and noted that the ethnic and religious measures had essentially the same relationship to open-closed mindedness and that the educational and occupational measures also had similar relations to the dependent variable.

SECTION THREE: Findings with regard to the Hypothesis of
Open-Closed Mindedness and Open-Closed
Social Structures

To recapitulate our central hypothesis:

- (1) The more closed the associational network in which a person is implicated; the more likely that he is to be closed minded.
The more open the associational network in which he is implicated, the more likely he is to be open minded.

Table 7 summarizes our findings with respect to this hypothesis using the interlocking-radial measure of open-closed social structures. For the entire sample (excluding those who had scores of 1.4 to 1.7 on either (or both) of the scales), the hypothesis is supported: 44 per cent of persons implicated in interlocking networks are closed minded in contrast to only 31 per cent of persons in radial networks; 39 per cent of the radials are open minded in contrast to 33 per cent of those in interlocked networks. This same pattern occurs in each of our three educational

subcategories (i.e., some college or above, high school only, and some high school or less) although the chi-squares for these subgroups do not achieve the .05 level of significance.

Insert Table 7 about here.

A surprising additional finding is that persons in radial networks are disproportionately found to be "open to the Klansman, but closed to the Communist". We shall attempt to account for this finding below.

Table 8 presents a parallel to Table 7 for our measure of educational homogeneity-heterogeneity (the "pure heterogeneous" category excludes those persons who are heterogeneous because their friends were on the average consistently of higher or of lower status than themselves). The consistent picture that emerged in Table 7 is replicated here only for the category of high school graduates. For the other two educational

Insert Table 8 about here.

categories, we have a general reversal in the patterning of the results: in both the "some college and above" and the "some high school or less" categories, the men in the homogeneous networks are more likely to be open minded and less likely to be closed minded than men in heterogeneous networks. Only with respect to "open to the Klansman, but closed to the Communist", are the men in heterogeneous networks distributed comparably to men in radial networks. Since we know that men

in homogeneous educational networks in the "some college or above" category tend to be of higher educational attainment (i.e., college graduates or postgraduates) than the men in heterogeneous networks (see panel 3 of Table 4 for educational homogeneity) and that the higher the educational attainment, the more tolerant the individual, the reversal of results here is not entirely surprising--it is an artifact of the actual heterogeneity in educational attainment in this category. Indeed our initial discussion of the central hypothesis suggested that we expected the educated elite (i.e., college graduates in homogeneous or "closed" educational networks) to be "errors" in this sense. Education presumably serves as a functional alternative to structural heterogeneity in moving people toward openness to different ideas.

The truly deviant finding was our discovery that open mindedness was associated with educational homogeneity and closed mindedness with educational heterogeneity in the lowest educational category. The sample is very small here, but the reversal in trend is very strong. One possible explanation is that men in heterogeneous networks are more likely to be socially mobile and that their relative lack of educational attainment in combination with their anxiety over status mobility makes them more intolerant. Educational heterogeneity of associates would arise from the retention of lower-status friends met early in the life of the socially mobile and the acquisition of higher-status friends subsequent to his mobility. In examining this explanation, we found that

36 per cent of the pure homogeneous group were intergenerationally mobile (father-son mobility), while 50 per cent of the pure heterogeneous group were intergenerationally mobile (p about .11 for difference between two proportions). On the other hand, 28 per cent of the open minded were intergenerationally mobile; while 40 per cent of the closed minded were intergenerationally mobile (p about .12 for difference between two proportions). In other words, the pure heterogeneous group had a disproportionate number of intergenerationally mobile individuals and intergenerational mobility tends to be associated with closed mindedness in the lowest educational category. Although both differences between the two proportions fail to achieve the conventionally accepted level of significance, they are based on small sample sizes and therefore subject to large sampling errors. These results are at least congruent with our explanation of the relationship between closed mindedness and educational heterogeneity in terms of their common association with intergenerational mobility.

Table 9 reports the findings for religious homogeneity-heterogeneity. The striking finding here is that while our predicted relationship of religious heterogeneity and open mindedness obtains for the Protestants, there is no apparent patterning for the Catholics. Since Protestants are much more likely to be implicated in radial networks than Catholics (see Table 5 above) and radial networks tend to be associated with open mindedness (see Table 7 above), this differential

finding for Protestants and Catholics might be partially accounted for. Given the nature of our data as a snapshot at one point in time, we, of course, have no way of determining the direction of causality among religious homogeneity-heterogeneity, interlocking-radial networks, and open-closed mindedness.

Another interesting discrepancy between Protestants and Catholics with regard to their open-closed mindedness may be noted in Table 9a where we find that Protestants whose three friends are also Protestant are considerably less likely to be open minded than Catholics whose three friends are also Catholic. On the other hand, when Protestants having some non-Protestant friends are compared with Catholics having some non-Catholic friends, we observe an almost completely opposite trend in the data (although not significant) with the Protestants appearing somewhat more open minded than the Catholics. These several findings in combination lead us to hypothesize that heterogeneity in associates is a considerably more "broadening" experience for Protestants than for Catholics.

Insert Tables 9 and 9a about here.

Contrary to our expectations, we found no relationship between open-closed mindedness and the number of friends of the same ethnic group as the respondent's for the sample as a whole or any of the three educational subgroups we have

been considering. There are a number of indications, however, that ethnicity per se was of relatively low saliency for many of our respondents (e.g., over 12.5 per cent did not know their friends' ethnic backgrounds at all--we urged the respondent to "guess" even if he did not know for sure--in contrast to only 3.0 per cent who did not know their friends' religious preferences even after being urged to guess). For many, then, the ethnic homogeneity-heterogeneity of their friends was essentially fortuitous and of little or no consequence. In a subsequent analysis, we plan to examine the relationship between ethnic homogeneity and open-closed mindedness, controlling for subjective ethnic saliency.

Considering both types of measures of open-closed social structures, we can conclude that the overall pattern of results reveals an encouraging level of support for our central hypothesis, especially for the subcategory--high school graduates--which is the group best suited for testing the hypothesis inasmuch as the edge effects for this group are at a minimum. The results running counter to our central hypothesis are found exclusively in the highest and lowest educational subcategories, as we had anticipated. The highest educational group combines educational homogeneity and open mindedness, as our characterization of the educated elite predicted. The lowest educational group reveals the combination of heterogeneity and closed mindedness, both being associated with a disproportionate number of socially mobile individuals, again as was anticipated.

A logical question arises: what are the effects on open-closed mindedness of permutations of interlocking-radial networks with status homogeneity-heterogeneity? A simple additive model would suggest that persons in radial and educational heterogeneous networks, for example, are most likely to be open minded; conversely, persons in interlocked and educationally homogeneous networks are most likely to be closed minded. The contradictory effects of the combinations, radial-homogeneous and interlocked-heterogeneous, should result in intermediate proportions of the open minded. Table 10 provides a

Insert Table 10 about here.

test of this set of expectations. Clearly the radial-heterogeneous pairing provides the most potent combination since, for the total sample and two of the three subcategories, it has the highest proportion open minded. The other three combinations appear to have approximately equivalent relations to open-closed mindedness (this is especially true for the total sample and the high school graduates). The significant interaction of educational attainment with interlocking-radial and homogeneous-heterogeneous networks suggests that a simple additive model of the two network characteristics alone is not adequate to account for the results.

SUMMARY

Deriving from certain of Durkheim's and others' notions concerning the relationships between social structural conditions and psychological responses to these conditions, the following hypothesis is explored utilizing data gathered from the 1965-66 Detroit Area Study on 1,013 native-born white males between the ages of 21 and 64:

Men implicated in closed associational networks (i.e., who have friends of comparable social statuses) are more likely to be "closed minded"; while men implicated in open associational networks (i.e., who have friends of heterogeneous social statuses) are more likely to be "open minded".

Open mindedness is indexed by an individual's willingness to extend basic civil liberties to extremists of both the left (Communists) and the right (Ku Klux Klansmen); closed mindedness, by an individual's unwillingness to extend such liberties to either or both the left and the right. The inclusion of items drawn from Samuel Stouffer's classic study, Communism, Conformity, and Civil Liberties (1954), also affords an opportunity to replicate and generalize his results twelve years later. After instituting appropriate controls, we find that the results generally support expectations, although with important qualifications that suggest refinements of the general hypothesis.

FOOTNOTES

1. The Religion of the Semites, The Meridian Library, 1956 (originally published 1889), Lecture II.
2. Emile Durkheim, Suicide (Glencoe, Ill.: Free Press, 1951), translated by John A. Spaulding and George Simpson. Original appeared in 1897.

For a recent commentary on Durkheim's work on suicide, see Barclay D. Johnson, "Durkheim's One Cause of Suicide," American Sociological Review, 30 (December 1965), pp. 875-86.
3. A similar type of isomorphic reasoning between the social structural and cultural forms (i.e., ideas, "collective representations") is extensively developed in Durkheim's Elementary Forms of the Religious Life. More recently Guy E. Swanson in The Birth of the Gods develops similar notions.
4. Emile Durkheim, The Division of Labor in Society (Glencoe, Ill.: Free Press, 1947). Original appeared in 1893.
5. Bernard Berelson, Paul F. Lazarsfeld, and William N. McPhee, Voting: A Study of Opinion Formation in a Presidential Campaign (Chicago: University of Chicago Press, 1954). Also see Paul F. Lazarsfeld and Robert K. Merton, "Friendship as a Social Process," in Morroe Berger, et al., eds., Freedom and Control in Modern Society (New York: Van Nostrand, 1954); Theodore Newcomb, The Acquaintance Process (New York: Holt, Rinehart, and Winston, 1961).
6. Edward O. Laumann, Prestige and Association in an Urban Community (Indianapolis, Ind.: Bobbs-Merrill Co., 1966), pp. 123-37.
7. Goodwin B. Watson, The Measurement of Fair-Mindedness, Contribution to Education, No. 176, Bureau of Publications, Teachers College, Columbia University, 1925.
8. Milton Rokeach, The Open and Closed Mind (New York: Basic Books, Inc., 1960), p. 57 (our paraphrase).
9. Cf. Samuel A. Stouffer, Communism, Conformity, and Civil Liberties (New York: Doubleday, 1955), p. 127.

10. Herbert Gans, The Urban Villagers (New York: The Free Press of Glencoe, 1962).
11. Cf. Joseph Greenblum and Leonard I. Pearlin, "Vertical Mobility and Prejudice: A Socio-Psychological Analysis," in Reinhard Bendix and Seymour M. Lipset, eds., Class, Status, and Power (Glencoe, Ill.: Free Press, 1953), pp. 480-91; Bruno Bettelheim and Morris Janowitz, Social Change and Prejudice (New York: Free Press of Glencoe, 1964).

Hodge and Treiman in a recent article have posed some important substantive and methodological objections to the above literature that must be taken into account. Their basic point is that a person's degree of prejudice may be an additive effect of his origin and destination status rather than an interaction effect arising out of mobility per se.

Cf. Robert W. Hodge and Donald J. Treiman, "Occupational Mobility and Attitude Toward Negroes," American Sociological Review, 31(February 1966), pp. 93-102.

12. Theodore W. Adorno, et al., The Authoritarian Personality (New York: Harpers and Brothers, 1950); Milton Rokeach, op. cit.
13. Cf. Guy E. Swanson, Rules of Descent, Studies in the Sociology of Parentage (Ann Arbor: University of Michigan Museum of Anthropology, forthcoming).
14. Cf. William Foote Whyte, Street Corner Society (Chicago: University of Chicago Press, 1943); Herbert Gans, op. cit.
15. Theodore Newcomb, op. cit.; George C. Homans, Social Behavior: Its Elementary Forms (New York: Harcourt, Brace, and World, 1961); Peter Blau, Exchange and Power in Social Life (New York: John Wiley and Sons, 1964); Herbert Gans, op. cit.
16. One should note that the above characterization of the differences in the types of relations obtaining in open and closed microstructures parallels the classic distinction between Gemeinschaft and Gesellschaft (F. Toennies) or between mechanical and organic solidarity (Durkheim).

17. David Wechsler, Manual for the Wechsler Adult Intelligence Scale, The Psychological Corp., 1955.

This scale has several advantages. It is relatively simple, short, reliable, and non-threatening to administer as part of a basic survey interview situation. It correlates highly--.81--with the total Wechsler Scale, according to basic standardization information, and has a split-half reliability of .85, thus providing about as good a brief measure as one can obtain of what psychologists consider functional intelligence in America today. Finally, the nature of the subtest itself seems especially relevant to our hypotheses about open-closed mindedness, since it requires people to look for underlying similarities between concretely different objects.

18. A multi-stage probability sample of dwelling units of that part of the Detroit SMSA that was tracted in 1950 plus some small additions made to take into account recent suburban population growth was drawn. Within each dwelling unit having one or more eligible respondents, one person was drawn at random for interview. A total of 985 actual interviews was obtained, of which 28 have been double-weighted, yielding a final set of 1,013 cases for use in analysis. These 1,013 cases represent 80 per cent of the eligible households sampled. Refusals to grant interviews accounted for 13.9 per cent of the eligible households (N = 1,271); another 6.4 per cent was lost because no one had been found home after 6 calls (5.5 per cent) or for other reasons.

For further details concerning the sampling design and sample completion rates, the interested reader may write Professor Howard Schuman, Director, Detroit Area Study, for a copy of Working Paper #1, Project #938, "Sampling Memorandum for 1965-66 Detroit Area Study," January 1967.

19. We included three items from Rokeach's Dogmatism Scale that had high item-to-scale (40-item) correlations, viz., (a) "In this complicated world of ours, the only way we can know what's going on is to rely on leaders or experts that can be trusted," (b) "There are two kinds of people in the world, those who are for the truth, and those who are against the truth," and (c) "To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side." The shortened Dogmatism scale correlated .28 with the "Tolerance for Communist Scale," .19 with the "Tolerance for Ku Klux Klansmen Scale," and .30 with the combined Communist and Klan scales.

20. The following is a highly selected bibliography: Samuel Stouffer, *op. cit.*; S. M. Lipset, "Working Class Authoritarianism," in *Political Man* (New York: Doubleday and Co., Inc., 1960); H. McClosky, "Conservatism and Personality," *American Political Science Review*, 21(May 1958), 27-45; Gerhart H. Saenger, "Social Status and Political Behavior," in S. M. Lipset and R. Bendix (eds.), *Class, Status, and Power* (Glencoe, Ill.: Free Press, 1953); Verling C. Troidahl and Frederic A. Powell, "A Short-Form Dogmatism Scale for Use in Field Studies," *Social Forces*, 44 (December 1965), 211-4.
21. See Edward O. Laumann, *op. cit.*, pp. 64-67, 124-126, for a more extended discussion of edge effects.
22. The actual measurement of associational homogeneity-heterogeneity was attempted by constructing two different indices for occupational and educational homogeneity (H) and a single index for religious and ethnic homogeneity. The non-directional measure of educational homogeneity was calculated from the following formula:

$$H_e = 10 - \sqrt{(x_e - x_r)^2/n}, \text{ where } x_e = \text{educational status}$$

of friends, ranging from "1" for "only grammar school completed" to "8" for "postgraduate schooling"; x_r = educational status of the respondent; n = number of friends reported. A similar non-directional measure of occupational homogeneity was calculated, employing the two-digit Duncan Socio-Economic Status Scores of occupational prestige as our status measure. The directional measure of educational homogeneity was calculated from the following formula:

$$H_{de} = (\bar{x}_e - x_r) + 10, \text{ with } H_{de} \text{ above 10 indicating}$$

that the average educational status of the friends was higher than the respondent's, below 10 indicating that the average educational status of the friends was below that of the respondent's, and approximately equal to 10, indicating that the average educational status of friends and that of the respondent were equal. These two indices were cross-tabulated to identify four types of respondents: (1) those who were high on heterogeneity because of an upward interaction bias (friends' status on the average higher than the respondent's), (2) those who were high on heterogeneity because of a downward

interaction bias, (3) those who were homogeneous as all statuses in the network were approximately equal, and (4) those who were purely heterogeneous in that some friends' statuses were higher than the respondent's and some were lower. We similarly identified these four categories for occupational homogeneity.

The ethnic and religious homogeneity or heterogeneity of the respondent's network was measured by the simple expedient of counting the number of friends who were of the same religious or ethnic background as the respondent. Complete homogeneity occurred when all three friends of the respondent were of the same ethnic background or religious preference; complete heterogeneity occurred when none of the friends were of the same ethnic or religious status as the respondent.

Cf. Edward O. Laumann, op. cit., pp. 114-116, 124-127, for discussions of some of the limitations of measures of this type.

23. This result is nicely congruent with our expectations as suggested by the cross-pressure literature on vote intention. Cf. Bernard Berelson, Paul F. Lazarsfeld, and William N. McPhee, op. cit.

24. We did, however, find evidence in support of Hypothesis ii discussed above (i.e., "the degree of affective involvement will vary according to the type of associational network") in that there were a significant correlation of .12 between interlocking-radial networks and reported average closeness with friends--the respondent indicated for each friend whether he regarded him as a "very close personal friend", a "good friend", or an "acquaintance"--and a significant correlation of .22 between interlocking-radial networks and the average frequency of contact with the three friends. In other words, interlocked networks were more likely to be described as consisting of close personal friends who were seen with greater frequency than were radial networks.

Tables for

OPEN AND CLOSED STRUCTURES*

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Paper prepared for the 1967 Annual Meetings of the American Sociological Association, San Francisco, California, August 29, 1967. Section: "Personality Correlates of Changing Social Structure"

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D.A.S. Project 938
Working Paper #3

Center for Research on
Social Organization
Working Paper #29

TABLE 1. Communist Scale by the Klan Scale, for the Entire Sample and for the Reduced Sample Excluding Scores of 1.4 to 1.7 (Per Cent Distribution in Parentheses).

		Entire Sample		
		Communist Scale		
		Tolerant (1.0-1.3)	Intolerant (1.4-3.0)	Totals
KKK Scale	Tolerant (1.0-1.3)	182 (74)	234 (32)	416 (42)
	Intolerant (1.4-3.0)	65 (26)	509 (68)	574 (58)
	Totals	247 (100)	743 (100)	990 (100)
		$\chi^2 = 135.44, 1 \text{ d.f.}, p \text{ less than } .001$ $c = .35$		

		Reduced Sample (exclusive of those with 1.4 to 1.7 scores)		
		Communist Scale		
		Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Totals
KKK Scale	Tolerant (1.0-1.3)	182 (93)	132 (39)	314 (59)
	Intolerant (1.8-3.0)	13 (7)	210 (61)	223 (41)
	Totals	195 (100)	342 (100)	537 (100)
		$\chi^2 = 153.24, 1 \text{ d.f.}, p \text{ less than } .001$ $c = .47$		

TABLE 2. Open and Closed Mindedness, Tolerance for Communists, and Tolerance for Ku Klux Klansmen by Selected Social and Demographic Characteristics of the Total Sample: Per Cent Distributions.

Social and Demographic Characteristics	Communist Scale			KKK Scale			Combined Tolerance Scale			
	Row Totals	Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Row Totals	Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Row Totals	Open-minded	Open to KKK, not to Comm.	Closed to Both
Respondent's AGE										
21 to 29 years	(144)	35	65	(141)	69	31	(106)	35	35	30
30 to 39 years	(197)	36	64	(166)	65	35	(138)	43	20	37
40 to 49 years	(226)	34	66	(195)	60	40	(152)	34	23	43
50 to 64 years	(184)	26	74	(175)	54	46	(126)	26	25	49
Totals	(751)	33	67	(677)	61	39	(522)	35	25	40
SUBJECTIVE CLASS IDENTIFICATION										
Upper and Upper Middle Class	(132)	46	54	(126)	71	29	(101)	49	27	25
Middle Class	(270)	32	68	(245)	58	42	(178)	32	22	46
Upper Working Class	(106)	34	66	(97)	63	37	(77)	39	25	36
Working or Lower Class	(238)	24	76	(204)	57	43	(162)	25	28	47
Totals	(746)	32	68	(672)	61	39	(518)	34	25	41
Respondent's EDUCATIONAL ATTAINMENT										
8 years or less	(98)	10	90	(77)	44	56	(65)	9	29	62
Some High School	(152)	22	78	(115)	57	43	(98)	27	28	45
High School, Vocational Training	(258)	31	69	(243)	58	42	(187)	29	29	42
Some College	(130)	40	60	(119)	67	33	(83)	43	24	33
College Graduate	(57)	53	47	(65)	72	28	(46)	57	15	28
Post-college	(56)	73	27	(58)	78	22	(43)	77	9	14
Totals	(751)	33	67	(677)	61	39	(522)	35	25	40

TABLE 2. Page 2

Social and Demographic Characteristics	Communist Scale			KKK Scale			Combined Tolerance Scale			
	Row Totals	Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Row Totals	Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Row Totals	Open-minded	Open to KKK, not to Comm.	Closed to Both
Respondent's SCORE ON SIMILARITIES TEST										
0 to 9	(168)	12	88	(136)	48	52	(111)	15	25	60
10 to 13	(156)	26	74	(128)	59	41	(101)	32	24	44
14 to 16	(157)	36	64	(145)	58	42	(108)	29	29	42
17 to 19	(176)	41	59	(175)	71	29	(133)	46	29	25
20 to 25	(96)	58	42	(94)	72	28	(71)	58	15	27
Totals	(753)	33	67	(678)	61	39	(524)	35	25	40
Respondent's RELIGIOUS PREFERENCE										
Protestant	(359)	32	68	(333)	63	37	(248)	32	28	40
Roman Catholic	(322)	30	70	(288)	57	43	(230)	33	23	43
Jewish	(24)	75	25	(20)	60	40	(14)	71	--	29
Other and no religion	(47)	40	60	(36)	78	22	(32)	50	28	22
Totals	(752)	33	67	(677)	61	39	(524)	35	25	40
Respondent's FAMILY INCOME										
Under \$5000	(33)	27	73	(22)	45	55	(18)	22	22	56
\$5000 to \$6999	(89)	29	71	(71)	58	42	(62)	29	27	44
\$7000 to \$9999	(244)	24	76	(232)	58	42	(175)	26	27	47
\$10000 to \$14999	(239)	37	63	(215)	66	34	(167)	39	27	34
\$15000 to \$19999	(82)	40	60	(79)	66	34	(57)	46	19	35
\$2000 and above	(55)	47	53	(50)	62	38	(37)	51	16	33
Totals	(742)	32	68	(669)	60	40	(516)	34	25	41

TABLE 2. Page 3

Social and Demographic Characteristics	Communist Scale			KKK Scale			Combined Tolerance Scale			
	Row Totals	Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Row Totals	Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Row Totals	Open-minded	Open to KKK, not to Comm.	Closed to Both
Respondent's POLITICAL PARTY PREFERENCE										
Strong Republican	(76)	30	70	(65)	66	34	(52)	37	35	28
Not Strong Rep.	(119)	31	69	(110)	65	35	(81)	36	26	38
Independent Rep.	(32)	47	53	(39)	77	23	(26)	46	27	27
Independent	(63)	33	67	(58)	64	36	(40)	33	30	37
Independent Dem.	(69)	43	57	(59)	66	34	(50)	44	20	36
Not Strong Dem.	(191)	30	70	(167)	57	43	(129)	29	25	46
Strong Democrat	(190)	31	69	(170)	54	46	(136)	33	21	46
Totals	(740)	33	67	(668)	61	39	(514)	35	25	40
Respondent's SUBJECTIVE ETHNIC IDENTIFICATION										
British and American	(158)	30	70	(155)	65	35	(110)	34	28	38
German and NW. Europe	(198)	39	61	(185)	64	36	(149)	38	22	40
French	(66)	27	73	(58)	45	55	(45)	22	18	60
Irish	(104)	26	74	(81)	62	38	(68)	28	32	40
Polish	(85)	21	79	(78)	54	46	(60)	27	23	50
USSR and Hungary	(64)	53	47	(54)	70	30	(43)	56	19	25
Italy and S. Europe	(48)	31	69	(43)	60	40	(33)	36	27	37
Totals	(723)	33	67	(654)	61	39	(508)	34	25	41

TABLE 2. Page 4

Social and Demographic Characteristics	Communist Scale			KKK Scale			Combined Tolerance Scale			
	Row Totals	Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Row Totals	Tolerant (1.0-1.3)	Intolerant (1.8-3.0)	Row Totals	Open-minded	Open to KKK, not to Comm.	Closed to Both
Respondent's OCCUPATION										
00 to 19	(165)	22	78	(134)	56	44	(116)	25	31	44
20 to 39	(183)	22	78	(158)	53	47	(127)	23	28	49
40 to 59	(158)	33	67	(136)	63	37	(97)	39	20	41
60 to 70	(167)	41	59	(170)	65	35	(128)	40	27	33
80 to 96	(73)	62	38	(75)	77	23	(51)	65	12	24
Totals	(746)	33	67	(673)	61	39	(519)	35	25	40

TABLE 3: Pearsonian and Eta (indicated by asterisks) Coefficients for Selected Demographic and Social Variables and Measures of Tolerance for Communists, Tolerance for Ku Klux Klansmen, and Open-Closed Mindedness.

Demographic or Social Characteristic	Tolerance for Communists	Tolerance for Ku Klux Klansmen	Open-Closed Mindedness#
##Age	.08	.10	.12
Subjective Class Identification	-.15	-.07	-.13
Educational Attainment	-.32	-.20	-.35
Score on Similarities Test	-.31	-.23	-.30
*Religious Preference	.11	.03	.07
Family Income	-.13	-.07	-.14
*Political Party Preference	.06	.08	.07
*Subjective Ethnic Identification	.14	.08	.13
Occupational Category	-.27	-.15	-.22

#For this correlational analysis, Open-Closed Mindedness was measured by the sum of the individual's scores on the Tolerance for Communist Scale and the Tolerance for Ku Klux Klansmen Scale.

##When educational attainment is controlled, correlations with age disappear.

TABLE 4. Homogeneity of Friendship Networks in Terms of Education, Occupation, Ethnicity and Religion, by Selected Social and Demographic Characteristics of the Total Sample: Per Cent Distributions.

Social and Demographic Characteristics	Educational Homogeneity Type					Occupational Homogeneity Type				
	Row Totals	Homo-geneous Network	Friends Above and Below	Friends Above	Friends Below	Row Totals	Homo-geneous Network	Friends Above and Below	Friends Above	Friends Below
Respondent's AGE										
21 to 29 years	(203)	33	32	24	12	(171)	32	22	25	22
30 to 39 years	(250)	34	26	20	20	(244)	36	21	18	24
40 to 49 years	(278)	28	27	28	17	(272)	35	19	27	18
50 to 64 years	(243)	26	23	42	8	(239)	32	21	31	16
Totals	(974)	30	27	29	15	(926)	34	21	25	20
SUBJECTIVE CLASS IDENTIFICATION										
Upper and Upper Middle Class	(178)	33	31	17	19	(171)	35	25	15	26
Middle Class	(361)	24	32	27	17	(340)	31	25	21	22
Upper Working Class	(135)	30	24	33	13	(127)	33	15	32	20
Working or Lower Class	(291)	35	19	37	9	(280)	36	16	34	14
Totals	(965)	30	27	29	14	(918)	34	21	25	20
Respondent's EDUCATIONAL ATTAINMENT										
8 years or less	(107)	20	6	75	--	(107)	33	21	38	8
Some High School	(180)	36	13	51	--	(178)	37	21	30	12
High School, Vocational Training	(338)	35	33	29	3	(311)	30	23	26	21
Some College	(183)	11	44	7	38	(165)	36	19	21	24
College Graduate	(87)	39	26	--	34	(83)	31	19	13	36
Post-college	(80)	44	20	--	36	(74)	46	22	8	24
Totals	(975)	30	27	29	14	(918)	34	21	25	20

TABLE 4. Page 2

Social and Demographic Characteristics	Educational Homogeneity Type					Occupational Homogeneity Type				
	Row Totals	Homo-geneous Network	Friends Above and Below	Friends Above	Friends Below	Row Totals	Homo-geneous Network	Friends Above and Below	Friends Above	Friends Below
Respondent's SCORE ON SIMILARITIES TEST										
0 to 9	(196)	33	16	48	3	(196)	38	19	31	12
10 to 13	(194)	24	29	37	10	(191)	33	23	29	15
14 to 16	(211)	31	26	25	18	(197)	31	23	23	23
17 to 19	(237)	28	32	21	19	(233)	30	18	24	29
20 to 25	(136)	36	30	10	24	(121)	38	21	17	24
Totals	(974)	30	27	29	14	(938)	33	21	25	21
Respondent's RELIGIOUS PREFERENCE										
Protestant	(483)	30	28	31	11	(459)	36	20	26	18
Roman Catholic	(413)	30	25	27	18	(398)	30	23	25	22
Jewish	(28)	39	21	25	15	(22)	36	9	36	19
Other and no religion	(49)	22	24	29	25	(48)	43	13	17	27
Totals	(973)	30	27	29	14	(927)	34	21	25	20
Respondent's FAMILY INCOME										
Under \$5000	(37)	35	16	46	3	(33)	33	16	33	18
\$5000 to \$6999	(105)	30	21	37	12	(98)	37	23	30	10
\$7000 to \$9999	(325)	30	28	31	11	(314)	32	19	30	19
\$10000 to \$14999	(314)	31	26	28	15	(305)	32	23	24	21
\$15000 to \$19999	(112)	26	33	19	22	(101)	34	19	20	27
\$20000 and above	(72)	29	32	18	21	(69)	45	20	12	23
Totals	(965)	30	27	29	14	(920)	34	21	25	20

TABLE 4. Page 3

Social and Demographic Characteristics	Educational Homogeneity Type					Occupational Homogeneity Type				
	Row Totals	Homo-geneous Network	Friends Above and Below	Friends Above	Friends Below	Row Totals	Homo-geneous Network	Friends Above and Below	Friends Above	Friends Below
Respondent's POLITICAL PARTY PREFERENCE										
Strong Republican	(104)	33	25	24	18	(102)	35	23	19	23
Not Strong Rep. Independent	(154)	25	33	30	12	(147)	39	21	18	22
Rep. Independent	(56)	25	32	29	14	(49)	35	18	22	25
Independent Dem.	(91)	27	27	31	15	(79)	23	28	22	27
Not Strong Dem. Strong Democrat	(87)	28	30	29	13	(83)	28	27	31	14
	(241)	31	25	27	17	(228)	36	17	31	16
	(226)	34	23	31	12	(225)	34	20	28	18
Totals	(959)	30	27	29	14	(913)	34	21	25	20
Respondent's SUBJECTIVE ETHNIC IDENTIFICATION										
British and American	(224)	26	28	33	13	(213)	35	20	27	18
German and NW. Europe	(267)	28	28	28	16	(249)	33	22	24	21
French	(82)	22	34	27	17	(75)	32	20	33	15
Irish	(125)	37	26	26	11	(125)	38	16	22	24
Polish	(107)	37	15	35	13	(104)	29	33	21	17
USSR and Hungary	(77)	31	23	25	21	(71)	27	18	31	24
Italy and S. Europe	(61)	30	30	23	17	(57)	28	16	30	26
Totals	(943)	30	27	29	15	(894)	33	21	26	20

TABLE 4. Page 4

Social and Demographic Characteristics	Educational Homogeneity Type					Occupational Homogeneity Type				
	Row Totals	Homo-geneous Network	Friends Above and Below	Friends Above	Friends Below	Row Totals	Homo-geneous Network	Friends Above and Below	Friends Above	Friends Below
Respondent's OCCUPATIONAL CATEGORY										
00 to 19	(185)	38	21	35	6	(190)	32	8	60	--
20 to 39	(224)	26	20	44	10	(212)	38	23	37	2
40 to 59	(215)	25	34	27	14	(207)	29	33	19	19
60 to 79	(237)	29	30	21	20	(220)	37	23	3	37
80 to 96	(106)	35	29	8	28	(100)	33	11	--	56
Totals	(967)	30	27	29	15	(929)	34	21	25	20

TABLE 4. Page 5

Social and Demographic Characteristics	Number of Friends of the Same Ethnic Group as the Respondent					Number of Friends of the Same Religion as the Respondent				
	Row Totals	None	One	Two	Three	Row Totals	None	One	Two	Three
Respondent's AGE										
21 to 29 years	(131)	45	33	11	11	(179)	11	25	28	36
30 to 39 years	(170)	43	31	20	6	(229)	10	20	36	34
40 to 49 years	(213)	43	31	19	7	(248)	9	21	33	36
50 to 64 years	(192)	37	38	17	8	(213)	10	17	31	42
Totals	(706)	42	33	17	8	(869)	10	20	32	37
SUBJECTIVE CLASS IDENTIFICATION										
Upper and Upper Middle Class	(126)	39	31	22	8	(167)	13	17	35	35
Middle Class	(275)	43	32	19	6	(325)	10	18	35	37
Upper Working Class	(100)	44	32	19	5	(126)	10	21	33	36
Working or Lower Class	(199)	41	36	11	12	(246)	9	25	27	39
Totals	(700)	42	33	17	8	(864)	10	20	32	37
Respondent's EDUCATIONAL ATTAINMENT										
8 years or less	(77)	35	38	10	17	(90)	10	18	26	46
Some High School	(132)	39	38	14	9	(159)	11	16	31	42
High School, Vocational Training	(240)	46	28	18	8	(306)	9	25	31	35
Some College	(139)	42	38	16	4	(157)	9	23	37	31
College Graduate	(57)	35	32	28	5	(84)	14	12	42	32
Post-college	(61)	39	25	28	8	(74)	5	18	30	47
Totals	(706)	42	33	17	8	(870)	10	20	32	37

TABLE 4. Page 6

Social and Demographic Characteristics	Number of Friends of the Same Ethnic Group as the Respondent					Number of Friends of the Same Religion as the Respondent				
	Row Totals	None	One	Two	Three	Row Totals	None	One	Two	Three
Respondent's SCORE ON SIMILARITIES TEST										
0 to 9	(129)	42	34	12	12	(173)	12	20	28	40
10 to 13	(141)	42	33	16	9	(173)	10	22	32	36
14 to 16	(163)	46	29	18	7	(190)	8	22	30	40
17 to 19	(174)	41	35	16	8	(213)	10	21	34	35
20 to 25	(100)	35	33	28	4	(122)	9	15	40	36
Totals	(707)	42	33	17	8	(871)	10	20	32	37
Respondent's RELIGIOUS PREFERENCE										
Protestant	(324)	39	34	21	6	(435)	5	19	36	40
Roman Catholic	(330)	44	34	14	8	(373)	10	24	31	35
Jewish	} (52)	} 46	} 19	} 19	} 16	(25)	8	4	16	72
Other and no religion						(39)	67	15	13	5
Totals	(706)	42	33	17	8	(872)	10	20	32	37
Respondent's FAMILY INCOME										
Under \$5000	(28)	46	43	4	7	(33)	27	9	27	37
\$5000 to \$6999	(74)	43	31	14	12	(90)	4	28	37	31
\$7000 to \$9999	(234)	42	38	12	8	(289)	10	18	33	39
\$10000 to \$14999	(239)	40	33	20	7	(286)	10	21	32	37
\$15000 to \$19999	(72)	43	19	32	6	(98)	10	21	29	40
\$20000 and above	(54)	44	24	22	10	(68)	7	21	37	35
Totals	(701)	42	33	17	8	(864)	10	20	32	37

TABLE 4. Page 7

Social and Demographic Characteristics	Number of Friends of the Same Ethnic Group as the Respondent					Number of Friends of the Same Religion as the Respondent				
	Row Totals	None	One	Two	Three	Row Totals	None	One	Two	Three
Respondent's POLITICAL PARTY PREFERENCE										
Strong Republican	(71)	41	34	21	4	(99)	13	16	31	40
Not Strong Rep.	(115)	31	37	24	8	(145)	10	24	22	44
Independent Rep.	(45)	40	40	18	2	(45)	7	31	29	33
Independent	(59)	44	27	22	7	(72)	11	13	40	36
Independent Dem.	(63)	51	32	11	6	(81)	12	17	40	31
Not Strong Dem.	(164)	45	29	16	10	(210)	8	23	33	36
Strong Democrat	(179)	41	34	14	11	(205)	10	20	33	37
Totals	(696)	42	33	17	8	(857)	10	20	32	37
Respondent's SUBJECTIVE ETHNIC IDENTIFICATION										
British and American	(160)	31	33	28	8	(204)	5	16	35	44
German and NW. Europe	(181)	43	34	19	4	(235)	10	26	32	32
French	(67)	61	33	4	2	(73)	11	36	29	24
Irish	(90)	33	47	13	7	(111)	12	18	33	37
Polish	(88)	33	28	17	22	(96)	8	16	30	46
USSR and Hungary	(57)	54	23	12	11	(67)	19	15	25	41
Italy and S. Europe	(50)	56	26	12	6	(55)	16	16	42	26
Totals	(693)	41	33	18	8	(841)	10	21	32	37

TABLE 4. Page 8

Social and Demographic Characteristics	Number of Friends of the Same Ethnic Group as the Respondent					Number of Friends of the Same Religion as the Respondent				
	Row Totals	None	One	Two	Three	Row Totals	None	One	Two	Three
Respondent's OCCUPATIONAL STATUS CATEGORY										
00 to 19	(129)	46	28	16	10	(165)	13	22	30	35
20 to 39	(160)	43	34	9	14	(190)	10	23	28	39
40 to 59	(163)	40	39	14	7	(198)	9	20	33	38
60 to 79	(179)	38	36	22	4	(215)	10	18	36	36
80 to 96	(71)	42	20	32	6	(96)	8	16	34	42
Totals	(702)	42	33	17	8	(864)	10	20	32	38

TABLE 5. Structure of Friendship Networks (Interlocking or Radial) by Selected Social and Demographic Characteristics: Percent Distributions.

Social and Demographic Characteristics	Row Totals	Interlocking Network	Radial Network
Respondent's AGE			
21 to 29 years	(203)	73	27
30 to 39 years	(252)	64	36
40 to 49 years	(285)	68	32
50 to 64 years	(245)	71	28
Totals	(985)	69	31
SUBJECTIVE CLASS IDENTIFICATION			
Upper and Upper Middle Class	(177)	71	29
Middle Class	(366)	70	30
Upper Working Class	(137)	66	34
Working or Lower Class	(296)	69	31
Totals	(976)	69	31
Respondent's EDUCATIONAL ATTAINMENT			
8 years or less	(109)	74	26
Some High School	(186)	67	33
High School, Vocational Training	(340)	71	29
Some College	(185)	66	34
College Graduate	(86)	62	38
Post-college	(78)	73	27
Totals	(984)	70	30
Respondent's SIMILARITIES TEST SCORE			
0 to 9	(202)	75	25
10 to 13	(197)	71	29
14 to 16	(212)	64	36
17 to 19	(237)	69	31
20 to 25	(137)	65	35
Totals	(985)	69	31
Respondent's RELIGIOUS PREFERENCE			
Protestant	(487)	65	35
Roman Catholic	(417)	74	26
Jewish	(28)	75	25
Other and no religion	(52)	67	33
Totals	(984)	69	31

TABLE 5. Page 2

Social and Demographic Characteristics	Row Totals	Interlocking Network	Radial Network
Respondent's FAMILY INCOME			
Under \$5000	(39)	69	31
\$5000 to \$6999	(104)	74	26
\$7000 to \$9999	(329)	69	31
\$10000 to \$14999	(319)	71	29
\$15000 to \$19999	(113)	59	41
\$20000 and above	(71)	66	34
Totals	(975)	69	31
Respondent's POLITICAL PREFERENCE			
Strong Republican	(104)	64	36
Not Strong Republican	(154)	71	29
Independent Republican	(57)	67	33
Independent	(90)	57	43
Independent Democrat	(88)	76	24
Not Strong Democrat	(242)	67	33
Strong Democrat	(234)	75	25
Totals	(969)	69	31
SUBJECTIVE ETHNIC IDENTIFICATION			
British and American	(228)	63	37
German and NW. Europe	(268)	66	34
French	(80)	68	32
Irish	(131)	74	26
Polish	(109)	79	21
USSR and Hungary	(76)	67	33
Italy and S. Europe	(61)	79	21
Totals	(953)	69	31
OCCUPATIONAL STATUS CATEGORY			
00 to 19	(193)	70	30
20 to 39	(229)	70	30
40 to 59	(213)	73	27
60 to 79	(238)	65	35
80 to 96	(104)	66	34
Totals	(977)	69	31

TABLE 6. The Structure of the Friendship Network (Interlocking or Radial) by the Educational Homogeneity of the Friendship Network, for the Total Sample and Three Educational Levels (Per Cent Distribution in Parentheses).

Educational Homogeneity	Structure of Friendship Network		
	Interlocking	Radial	Total
TOTAL SAMPLE			
Homogeneous network	205 (55)	85 (49)	290 (53)
Pure heterogeneous network	166 (45)	88 (51)	254 (47)
Totals	371 (100)	173 (100)	544 (100)
$\chi^2 = 1.82, p \text{ about } .175, \text{ two-tailed}$			

SOME COLLEGE OR MORE			
Homogeneous network	64 (47)	24 (35)	88 (43)
Pure heterogeneous network	72 (53)	45 (65)	117 (57)
Totals	136 (100)	69 (100)	205 (100)
Not significant.			

HIGH SCHOOL GRADUATE			
Homogeneous network	90 (55)	29 (44)	119 (52)
Pure heterogeneous network	73 (45)	36 (56)	109 (48)
Totals	163 (100)	65 (100)	228 (100)
$\chi^2 = 2.09, p \text{ about } .15, \text{ two-tailed}$			

SOME HIGH SCHOOL OR LESS			
Homogeneous network	51 (71)	32 (82)	83 (75)
Pure heterogeneous network	21 (29)	7 (18)	28 (25)
Totals	72 (100)	39 (100)	111 (100)
Not significant.			

TABLE 7. Open-Closed Mindedness by Interlocking vs. Radial Associational Networks, for the Total Sample and Three Educational Levels: Per Cent Distributions.

Type of Network	Open-Closed Mindedness			Total
	Open to Both	Open to Klan, Closed to Communist	Closed to Both	
TOTAL SAMPLE				
Interlocking	33	23	44	100 (362)
Radial	39	30	31	100 (149)
Totals	35 (178)	25 (128)	40 (205)	100 (511)
$\chi^2 = 7.92, 2 \text{ d.f.}, p \text{ less than } .02$				
SOME COLLEGE OR ABOVE				
Interlocking	54	16	29	99 (116)
Radial	59	24	18	101 (51)
Totals	56 (93)	19 (31)	26 (43)	101 (167)
$\chi^2 = 2.92, 2 \text{ d.f.}, p \text{ about } .25$				
HIGH SCHOOL GRADUATE				
Interlocking	27	27	46	100 (138)
Radial	35	35	30	100 (46)
Totals	29 (53)	29 (53)	42 (78)	100 (184)
$\chi^2 = 3.57, 2 \text{ d.f.}, p \text{ about } .15$				
SOME HIGH SCHOOL OR LESS				
Interlocking	19	24	57	100 (107)
Radial	23	35	42	100 (48)
Totals	20 (31)	28 (43)	52 (81)	100 (155)
$\chi^2 = 2.84, 2 \text{ d.f.}, p \text{ about } .25$				

TABLE 8. Open-Closed Mindedness by Educational Homogeneity-Heterogeneity, for the Total Sample and Three Educational Levels: Per Cent Distributions.

Educational Homogeneity	Open-Closed Mindedness			Total
	Open to Both	Open to Klan, Closed to Communist	Closed to Both	
TOTAL SAMPLE				
Pure Homogeneity	38	25	37	100 (164)
Pure Heterogeneity	43	22	35	100 (127)
Totals	40 (116)	24 (69)	36 (106)	100 (291)
$\chi^2 = .730$, not significant, p less than .70				
SOME COLLEGE OR ABOVE				
Pure Homogeneity	70	13	17	100 (46)
Pure Heterogeneity	55	23	21	99 (56)
Totals	62 (63)	19 (19)	20 (20)	101 (102)
$\chi^2 = 2.47$, 2 d.f., p about .29				
HIGH SCHOOL GRADUATE				
Pure Homogeneity	21	34	45	100 (71)
Pure Heterogeneity	40	19	40	99 (57)
Totals	30 (38)	27 (35)	43 (55)	100 (128)
$\chi^2 = 6.57$, 2 d.f., p less than .05				
SOME HIGH SCHOOL OR LESS				
Pure Homogeneity	32	23	45	100 (47)
Pure Heterogeneity	0	29	71	100 (14)
Totals	26 (15)	26 (15)	50 (31)	102 (61)
$\chi^2 = 6.07$, 2 d.f., p less than .05				
*(Higher Status) Heterogeneity	17 (16)	27 (25)	55 (51)	99 (92)

*NB: If people with on the average higher status friends are added to the pure heterogeneity row, it would still maintain pattern observed for comparison of "pure" types.

TABLE 9. Open-Closed Mindedness by Religious Homogeneity-Heterogeneity, for Protestants and Catholics: Per Cent Distributions.

Religious Homogeneity	Open-Closed Mindedness			Total
	Open to Both	Open to Klan, Closed to Communist	Closed to Both	
PROTESTANTS				
All friends Prot.	19	35	47	101 (84)
Two friends or fewer, Prot.	40	24	36	100 (128)
Totals	32 (67)	28 (60)	40 (85)	100 (212)
$\chi^2 = 10.86, 2 \text{ d.f.}, p \text{ less than } .01$				
CATHOLICS				
All friends Cath.	37	19	45	101 (74)
Two friends or fewer, Cath.	31	23	46	100 (125)
Totals	33 (66)	22 (43)	45 (90)	100 (199)
$\chi^2 = 2.78, \text{ not significant}, 2 \text{ d.f.}, p \text{ less than } .30$				

TABLE 9a. Open-Closed Mindedness by Religious Preference, for High and Low Religious Homogeneity.

ALL THREE FRIENDS OF SAME RELIGIOUS PREFERENCE				
Protestants	19	35	46	100 (84)
Catholics	37	19	45	101 (74)
Totals	27 (43)	27 (43)	46 (72)	100 (158)
$\chi^2 = 7.94, 2 \text{ d.f.}, p \text{ less than } .02$				
TWO FRIENDS OR FEWER OF THE SAME RELIGIOUS PREFERENCE				
Protestants	40	24	36	100 (128)
Catholics	31	23	46	100 (125)
Totals	36 (90)	24 (60)	41 (103)	101 (253)
$\chi^2 = 3.34, \text{ not significant}, 2 \text{ d.f.}, p \text{ less than } .20$				

TABLE 10. Open-Closed Mindedness by Combined Radial-Interlocking and Homogeneous-Heterogeneous (Educational) Networks: Per Cent Distributions.

Type of Social Structure	Open-Closed Mindedness		Total
	Open Minded	Closed Minded	
TOTAL SAMPLE			
Radial-Heterogeneous	38	62	100 (66)
Radial-Homogeneous	26	74	100 (62)
Interlocking-Heterogeneous	25	75	100 (108)
Interlocking-Homogeneous	28	72	100 (163)
Totals	29 (116)	71 (283)	100 (399)
$\chi^2 = 4.50, 3 \text{ d.f.}, p \text{ about } .225$			
SOME COLLEGE OR MORE			
Radial-Heterogeneous	93	7	100 (14)
Radial-Homogeneous	82	18	100 (11)
Interlocking-Heterogeneous	61	39	100 (28)
Interlocking-Homogeneous	79	21	100 (29)
Totals	76 (62)	24 (20)	100 (82)
$\chi^2 = 4.99, 3 \text{ d.f.}, p \text{ about } .15$			
HIGH SCHOOL GRADUATES			
Radial-Heterogeneous	80	20	100 (15)
Radial-Homogeneous	25	75	100 (8)
Interlocking-Heterogeneous	34	66	100 (29)
Interlocking-Homogeneous	33	67	100 (39)
Totals	41 (37)	59 (54)	100 (91)
$\chi^2 = 11.75, 3 \text{ d.f.}, p \text{ less than } .01$			
SOME HIGH SCHOOL OR LESS			
Radial-Heterogeneous	--	100	100 (2)
Radial-Homogeneous	42	58	100 (12)
Interlocking-Heterogeneous	--	100	100 (8)
Interlocking-Homogeneous	43	57	100 (23)
Totals	34 (15)	56 (29)	100 (44)
Not significant			

NOTE: If one collapses Radial-Homogeneous, Interlocking-Heterogeneous, and Interlocking-Homogeneous categories into one, and calculates the chi-square for the resulting fourfold table, for the total sample, $\chi^2 = 2.84, p \text{ about } .08$; for some college or more, $\chi^2 = 2.72, p \text{ about } .10$; for high school graduates, $\chi^2 = 9.67, p \text{ less than } .01$; for some high school or less, nonsignificant.