

PRESIDENTIAL ADDRESS: PARAMETERS OF SOCIAL STRUCTURE

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Social structures are defined by their parameters – the criteria underlying the differentiation among people and governing social interaction, such as sex, race, socioeconomic status, and power. The analysis of various forms of differentiation, their interrelations, and their implications for integration and change is the distinctive task of sociology. Two generic types of differentiation are heterogeneity and status inequality. Nominal parameters divide people into subgroups and engender heterogeneity. Graduated parameters differentiate people in terms of status rankings and engender inequality. The macrosocial integration of the diverse groups in modern society rests on its multiform heterogeneity resulting from many crosscutting parameters. For although heterogeneity entails barriers to social intercourse multiform heterogeneity undermines these barriers and creates structural constraints to establish intergroup relations. Crosscutting lines of differentiation thus foster processes of social integration, and they also foster processes of recurrent change. Strongly interrelated parameters impede these processes of integration and adjustment, however. (Such relationships between parameters – for example, between the occupation and income of individuals – must not be confused with the relationships between forms of differentiation – for example, between the division of labor and income inequality in societies.) Pronounced correlations of parameters reveal a consolidated status structure, which intensifies inequalities and discourages intergroup relations and gradual change. The growing concentration of resources and powers in large organizations and their top executives poses a serious threat of structural consolidation in contemporary society.

The concept of social structure is used widely in sociology, often broadly, and with a variety of meanings. It may refer to social differentiation, relations of production, forms of association, value integration, functional interdependence, statuses and roles, institutions, or combinations of these and other factors. A generic difference is whether social structure is conceived explicitly as being composed of different elements and their interrelations or abstractly as a theoretical construct or model. Radcliffe-Brown (1940) and Lévi-Strauss (1952) represent these contrasting conceptions of social structure. The first view holds that social structure is a system of *social* relations among differentiated parts of a society or group, which describes observable empirical condi-

tions and is merely the basis for a theory yet to be constructed to explain these conditions. The second view holds that social structure is a system of *logical* relationships among general principles, which is not designed as a conceptual framework to reflect empirical conditions but as a theoretical interpretation of social life.¹ If one adopts the first view, as I do, that social structure refers to the differentiated interrelated parts in a collectivity, not to theories about them, the

¹In Lévi-Strauss's (1952:322) words: "The term social structure has nothing to do with empirical reality but with models built after it." For a discussion of the two contrasting views of social structure, see Nadel (1957:149-51), Boudon (1971), and Lévi-Strauss (1952:336-42) himself.

fundamental question is how these parts and their connections are conceived.

My concept of social structure starts with simple and concrete definitions of the component parts and their relations. The parts are groups or classes of people, such as men and women, ethnic groups, or socioeconomic strata; more precisely, they are the positions of people in different groups and strata. The connections among as well as within the parts are the social relations of people that find expression in their social interaction and communication. This is a less abstract concept of social structure than one in terms of institutions and their integration, for example, inasmuch as it focuses on groups into which people can actually be divided and on observable manifestations of their social relations. While this view of social structure is not abstract in one sense, it is in another. Its concepts pertain to differences among people and their relations, not to higher-order abstractions, but it abstracts analytical elements from social life to trace their interrelations and does not construct ideal types to gain an intuitive understanding of total configurations.² Of course, people differ in many respects—in age, religion, occupation, and power, to name a few—and the analysis of social structure moves from lower to higher levels of theoretical abstraction as it seeks to explain the combinations of forms of differentiation and their implications. In short, by social structure I refer to population distributions among social positions along various lines—positions that affect people's role relations and social interaction. This intricate definition requires explication, and I will use the term structural parameter to clarify it.

FORMS OF DIFFERENTIATION

A social structure is delineated by its parameters. A structural parameter is any criterion implicit in the social distinctions people make in their social interaction. Age, sex, race, and socioeconomic status illustrate parameters, assuming that such differences actually affect people's role relations. The

² In the first sense, this conception differs from Parsons' more abstract ones; in the second, it conforms to his (1937:34-6, 603-24, 748-53) stress on abstracting analytical elements and contrasts with Weber's theoretical approach and Blumer's.

social positions that govern the social relations among their incumbents define the social structure. The simplest description of social structure is on the basis of one parameter. Thus, we speak of the age structure of a population, the kinship structure of a tribe, the authority structure of an organization, the power structure of a community, and the class structure of a society. These are not types of social structure but analytical elements of its distinguishing social positions in one dimension only. The different positions generated by a single parameter are necessarily occupied by different persons—an individual is either a man or a woman, old or young, rich or poor—but the case differs for positions generated by several parameters, because the same person simultaneously occupies positions on different parameters—he or she belongs to an ethnic group and lives in a community and has an occupation. Social structures are reflected in diverse forms of differentiation,³ which must be kept analytically distinct. The complex configuration of elements that compose the social structure cannot be understood, in my opinion, unless analytical dissection precedes attempts at synthesis.

To speak of social structure is to speak of differentiation among people, since social structure is defined by the distinctions people make, explicitly or implicitly, in their role relations. An undifferentiated social structure is a contradiction in terms.

The thesis of my paper is that the study of the various forms of differentiation among people, their interrelations, the conditions producing them, and their implications is the distinctive task of sociology. No other discipline undertakes this important task, and sociologists too have neglected it, despite the theoretical emphasis on differentiation as a core sociological concept ever since Spencer. We have been much concerned with the characteristics and behavior of persons, yet little with the forms and degrees of differentiation among them, which constitute the specific structural problems. The subjects of structural inquiry are, for instance, ethnic heterogeneity, not ethnic background; political differentiation, not political opinions; the

³ As Nadel (1957:97) puts it, "it seems impossible to speak of social structure in the singular."

division of labor, not occupational performance; income inequality, not poverty. My objective is to suggest a framework for such structural analysis.

Nominal and Graduated Parameters

Two basic types of parameter can be distinguished. The first is a nominal parameter, which divides a population into subgroups with explicit boundaries. There is no inherent rank order among these groups,⁴ though empirically group membership may be associated with differences in hierarchical status. Sex, religion, racial identification, occupation, and place of residence exemplify nominal parameters. The second type is a graduated parameter, which differentiates people in terms of a status rank order. In principle, the status gradation is continuous, which means that the parameter itself does not draw boundaries between strata; but the empirical distribution may reveal discontinuities that reflect hierarchical boundaries. Education, age, income, prestige, and power are examples of graduated parameters.

The assumption is that the differences in group affiliation and status created by structural parameters⁵ affect role relations and the social interaction in which these relations find expression. Existing evidence often suffices to satisfy this assumption. Thus, research has shown that social intercourse is less frequent between blacks and whites than within each group, that the role relations between supervisors and subordinates differ from those among subordinates, and that differences in socioeconomic status inhibit friendships. If such evidence does not already exist, the assumption must be tested. In the case of nominal parameters, sociable intercourse is expected to be more prevalent within groups than between

persons from different groups.⁶ In the case of graduated parameters, sociable intercourse is expected to be inversely related to the status distance between persons. Unless these expectations are met, the investigator must abandon his initial assumption that a factor is a structural parameter. The salience of various parameters is revealed by the strength of their association with sociable intercourse.⁷ Therefore the proposed analysis of structural differentiation in terms of parameters takes into account processes of social interaction.

A fundamental distinction in the generic form of differentiation is that between heterogeneity, which does not involve hierarchical differences, and status inequality, which does. Nominal parameters produce horizontal differentiation or heterogeneity, and graduated parameters produce vertical differentiation or inequality. A given nominal parameter's degree of heterogeneity depends on the number of subgroups into which a population is divided and on the distribution of people among them. The larger the number of ethnic groups in a community, the greater is its ethnic heterogeneity. But if nine tenths of a community belong to the same ethnic group and merely one tenth to a few others, there is less ethnic heterogeneity than if the population is more evenly divided among several ethnic groups. Both factors—number of groups and distribution among them—are taken into account by the index of heterogeneity proposed by Gibbs and Martin (1962), which measures the chances that two randomly selected individuals belong to different groups. This index enables one to

⁶To be precise, ingroup rates are expected to differ from outgroup rates, and the former are nearly always higher than the latter. An exception is sex with respect to sexual intercourse and marriage, though not with respect to sociable relations, which are more frequent among men and among women than between the two sexes.

⁷Further refinements are possible by distinguishing parameters on the basis of their significance for the content of social interaction. Whether a graduated parameter reflects a monotonic rank order of status, for instance, can be ascertained by investigating whether expressions of deference and compliance conform to the status gradations of the parameter for the entire range of positions. Such a test would undoubtedly show that age is not a unilinear status dimension, because the oldest people are unlikely to command most deference and compliance. Negative salience—aggression against an outgroup—may also be examined.

⁴The term *group* is used throughout for classes of people whose members collectively interact more with one another than with outsiders but all of whom are not necessarily in direct contact, as the members of primary groups are. For a discussion of the concept of group, see Merton (1968:338-42).

⁵To state that parameters *create* differentiation is speaking elliptically, of course. Parameters are concepts for observing the lines of differentiation among people created in their social interaction. For convenience of expression, such shorthand phrases as "the differentiation produced by a parameter" are used throughout the paper.

compare heterogeneity of various kinds and in various places, and to analyze the conditions associated with different forms and degrees of heterogeneity.

The inequalities resulting from graduated parameters also vary in degree. Equality is an absolute term. One cannot say "more equal," except sardonically, to imply lack of equality. But there can be a greater or lesser departure from equality. The meaning of much inequality is equivocal, however. I am not referring to the problem of how to combine various dimensions of status, nor the problem that some of these dimensions, like power, are difficult to measure. A more basic question is how to conceptualize degree of inequality in the simplest case when a single and precise indicator of status differences is under consideration. Wealth is a good illustration, because the meaning of individual differences in wealth is unambiguous. Nevertheless, inequality in wealth can be conceived of in two contrasting ways, both of which seem plausible. On the one hand, if nearly all people are equally poor and only a few have more wealth than the rest, one would say that there is less inequality than if great diversity in wealth exists among the population. On the other hand, if the total wealth is widely distributed, one would also say that there is less inequality than if most of it is concentrated in the hands of a few. These two views of extent of inequality conflict, though both contrast with complete equality. For when few own most of the wealth, all the rest are roughly equal; and the greater the diversity in wealth among people, the less tends to be the share of the total concentrated in few hands.

Two forms of status inequality should therefore be distinguished. The first pertains to the concentration of wealth, power, or other status attributes in a small elite and the consequent status distance between the elite and the majority. The second refers to the diversity in status among people and implies many fine status gradations.⁸ Most empirical

⁸ Not all status attributes are, like wealth, a stock of scarce resources distributed among a population. But even for those that are not, like education or prestige, it is meaningful to distinguish between great diversity and elite concentration of status, for instance, between a population with great diversity in years of schooling and one with a university-educated elite and largely illiterate masses.

measures of inequality, such as the Gini coefficient, primarily indicate elite concentration; and it is necessary to devise distinctive measures of status diversity.⁹ Large and differentiated middle strata reflect great status diversity. Whereas elite superiority and status diversity vary within limits independently of each other, and hence occur in various combinations, their extremes are opposite. The paradox of inequality is that much concentration of power or some other status advantage is more compatible with widespread equality than with status diversity, in accordance with Simmel's insight that despots fortify their position by leveling status distinctions among their subjects and "equalizing hierarchical difference" (1950:198).

Quasi-Castes

The relationships of a nominal parameter with graduated parameters indicate the status differences among groups; for example, the differences in education, income, and prestige among religious groups. Substantial correlations of nominal with graduated parameters make it possible to construct new parameters, which may be called ordinal parameters, and which divide people into groups with distinct boundaries that are ordered in a hierarchy of ranks.¹⁰ Thus, Duncan (1961) has created an index of occupational status by ranking occupational groups on the basis of their differences in education and income. In the polar case, a nominal parameter is perfectly correlated with at least one graduated parameter, because a hierarchical ranking of

⁹ Examples of measures of diversity are the interquartile range and other measures of dispersion that are, unlike the variance and the standard deviation, *not* strongly affected by extreme values. Indications of elite concentration for status attributes that do not permit computing the Gini index (or the top stratum's share of the total) would be the proportion of the population having high status, such as the proportion with graduate degrees or the proportion with managerial authority over more than one hundred employees.

¹⁰ The distinction of the three types of parameters is related to but not identical with that of nominal, ordinal, and interval scales of measurement. A main difference is that in terms of measurement, ordinal scales are an intermediate type between nominal and interval scales; whereas conceptually ordinal parameters are the derived type, since they combine the two criteria for defining nominal and graduated parameters, respectively.

groups has become institutionalized, so that groups differ not merely in average status but in the status of all their members without overlap. Castes illustrate such an institutionalized hierarchy of ranked groups. So does the administrative structure of organizations, which divides employees into official ranks that differ in authority and perquisites.

There are no castes in modern society. Yet one of its major institutions—formal organizations—resembles a caste structure in some respects, though not in all, of course, since administrative rank is not an ascribed position. Moreover, there are quasi-castes in modern society. If a nominal parameter indicative of ascribed positions is strongly associated with graduated parameters, it reveals hierarchically ranked groups that exhibit little overlap in status. Such groups may aptly be described as quasi-castes, provided that there are also restrictions on intimate relations between members of different groups. Racial differences in the United States are strongly associated with differences in prestige, education, income, wealth, and power; and they inhibit intermarriage and intimate social contacts generally. American blacks and whites are quasi-castes. Sex differences too are associated with differences in various aspects of status, but men and women are united through marriage in intimate family relations. Women and men cannot be designated as quasi-castes, therefore, though sex differences are not without caste ingredients.

If caste is dissected into its analytical elements rather than viewed as a global type, it becomes evident that caste ingredients can be found in many groups. Three basic attributes of caste are ascription, a hierarchy having no status overlap, and severe restrictions on social intercourse. The three do not have to occur together, however; and they do not have to be conceptualized as dichotomies that cannot vary in degree. Thus, instead of thinking of ascription in the usual way as an attribute that is either present or absent, we may treat it as the extreme value of a continuous variable, specifically, of rates of intergroup mobility. Ascription means that there is no mobility from the social positions people occupy at birth. If the mobility rates among social positions are very low, these positions hardly differ from ascribed ones and may be said to contain much of one caste

ingredient. Similarly, the hierarchical character of castes with no status overlap represents the terminal point of the continuous variable indicating how little status overlap exists and how great the hierarchical differences are between groups, which is reflected in the correlations between a nominal parameter and graduated parameters, with perfect correlations revealing the extreme of caste. Finally, restrictions on social intercourse are manifest in the actual rates of intermarriage and intergroup sociability, with very low rates indicating both a most salient parameter and a third kind of caste element.

By decomposing the ideal type of caste into its analytical elements, we can discover which groups display which caste ingredients to what extent. But the concept of quasi-caste should not be trivialized by applying it to nearly every group. All group differences are accompanied by some restriction on intergroup contacts, and most are also accompanied by some differences in average status and some restriction on intergroup mobility. Groups should be designated as quasi-castes only when a nominal parameter exhibits substantial positive correlations with graduated parameters, disclosing great status differences, and substantial negative correlations with both rates of intergroup contacts and rates of intergroup mobility, which show that restrictions on social intercourse between groups are severe and that social positions are virtually ascribed. Race is the polar case in our society, but there are other groups that resemble quasi-castes, like the Appalachian whites or Main Line Philadelphians. As this discussion illustrates, structural analysis tends to involve inquiries into the interrelations of parameters and their relationships with processes of social interaction and social mobility.

Structural Analysis

Parameters are the framework for the macrosociological analysis of social structure in empirical and theoretical terms. But are not parameters simply variables disguised by a fancy label? Although they are indeed variables characterizing individuals, they are used in structural analysis in distinctive ways. The variation in individual characteristics among people is the new variable that describes a feature of the social structure—the

degree of variation or the shape of the distribution. Thus, concern is not with the occupations of individuals but with the extent of variation in their occupational positions, which is indicative of the division of labor; not with the income of individuals but with the distribution of incomes in a society, which reflects income inequality. Empirically, structural parameters find expression in various measures of dispersion. Conceptually, specific forms of differentiation must be distinguished, and so must their combinations that generate still other forms of differentiation.

The theoretical aim is to explain the forms and degrees of social differentiation and their implications for social integration and social change. Hence, it is to explain variations in the structural features of societies, not variations in the behavior of individuals, in contrast to Homans (1961). Moreover, it is to explain the differentiation among people in societies, not the global characteristics (Lazarsfeld and Menzel, 1964:428-9) of societies, such as their cultural tradition, social institutions, or dominant values, in contrast to Parsons (1951; Parsons and Smelser, 1956). This conception of social structure does not try to encompass everything important in social life but focuses on the differentiation among people. The prevailing values and the existing technology, though surely important social conditions, are not part of the social structure in the narrow sense in which the term is used. Value orientations are taken into account indirectly insofar as they are reflected either in social differentiation—as exemplified by religious and political differences—or in the salience of parameters for social intercourse—as exemplified by the influence of cultural values on whether religious background or occupational success most affects choices of associates. Many social conditions may influence, and in turn be influenced by, the structural features under intensive investigation, such as society's technology and its affluence, and prevailing cultural values are considered to be simply another one of these conditions.¹¹

Three problem areas in structural analysis may be explored. The first is the connection between structural differentiation and pro-

cesses of social integration. Here concern is with the implications of differentiation for the processes of social interaction and communication in which social relations find expression and through which individuals become integrated in groups and the various groups are integrated in the larger social structure. The second problem is to refine the distinctions among forms of differentiation, analyze the conditions on which the specific forms depend, and investigate the relationships of one form of differentiation with others. For example, what are the distinct forms of the division of labor, which conditions govern the form it takes, and how is the division of labor related to status inequalities? A third question is how the actual combinations of the analytically distinguished forms of differentiation affect the dynamics of social life. The relationships of parameters indicate how consolidated status structures are, which has important implications for processes of integration and mobility, the nature of social change, and the depth of social inequalities. The remainder of the paper deals with these three problems.

DIFFERENTIATION AND INTEGRATION

Individuals become integrated members of groups through processes of recurrent social interaction and communication. This conceptualization of social integration complements that of social differentiation introduced earlier, integration being defined in terms of intensive social interaction and differentiation in terms of restrictions on social interaction. Social associations establish the networks of interpersonal relations that integrate individuals into cohesive social units. Regular face-to-face contacts in groups socialize new members, furnish continuing social support, create interdependence through social exchange, and thereby make individuals integral parts of groups. These processes of social integration describe conditions in small groups, such as families, friendship cliques, and work groups. But how do individuals and small groups become integrated in entire societies or other collectivities too large for most members to be in direct communication?

The answer often given is that common values are the basis of the social integration of societies. However, common values do not

¹¹I consider this structural approach to be in the tradition of Simmel, Durkheim, and Marx.

suffice to integrate individuals into a network of social relations. This requires supportive social interaction, which is the reason that integration is assumed to rest on social interaction. Although shared value orientations undoubtedly promote social integration, they do so by encouraging social intercourse among persons when the opportunity arises. Since value orientations are more likely to be shared within groups than by members of different groups, we must still ask what produces the social connections among diverse groups that integrate them and their members into a society. The answer I suggest is that structural differentiation is the condition that brings about macrosocial integration, paradoxical as this seems, inasmuch as differentiation is conceptualized as restricting social intercourse and integration as contingent on it.

Implications of Heterogeneity

Even in small and simple tribes, social integration depends on structural differentiation. The kinship structure is the main basis for differentiation. It divides tribes into clans and families, creating subunits sufficiently small for every member to have daily contact with all others. The intimate and frequent social interaction in families socializes children and transmits the common language and culture to them, and it provides social support to adults as well as children. These social processes make children as well as adults integral parts not only of their families but also of their clans and tribes, because the kinship structure links families in interlocking groups. The incest taboo requires that kin-groups exchange spouses, with the result that marriages give rise to crosscutting ties that strengthen intergroup relations. Hence, the differentiated kinship structure produces the conditions for integrative social associations both within and among kin-groups.

Industrialized societies are much larger and much more heterogeneous than simple tribes, of course. Their sheer size makes it inconceivable that a single kinship system could encompass all members and serve as the basis for an integrated social structure. Their complex heterogeneity, however, furnishes new grounds for social interaction across group boundaries that integrates the diverse groups; but these new conditions alter the character of most human relations and of the

social integration rooted in them. The macrostructures of industrial societies are not merely much differentiated in a given dimension; they are differentiated along many distinct lines—religiously, occupationally, ethnically, geographically, politically, and in numerous other ways. Before analyzing such multiform heterogeneity, let us examine the significance of heterogeneity in a single dimension for social integration.

Nominal parameters are reflected in heterogeneity of varying degrees. By definition, a nominal parameter finds expression in disproportionately high rates of sociable intercourse within groups, and recurrent sociable intercourse is the foundation of social integration. Hence, nominal parameters contribute to ingroup integration. The more salient a parameter, the firmer are the group boundaries, and the greater is the tendency to confine sociable interaction to the ingroup. Consequently, salient parameters intensify integrative social interaction within groups, but at the same time they fortify the segregating boundaries between groups. This would impede the macrosocial integration of the diverse groups in society were it not for heterogeneity, which changes the situation.

Whereas heterogeneity creates barriers to social intercourse, much heterogeneity weakens these barriers. This paradoxical conclusion can be derived from two simple assumptions: first, people tend to prefer ingroup to outgroup associates, and second, people tend to prefer associating with outgroup members to not associating with anybody and remaining isolated. The first assumption is true by definition, because the criterion of a group is an excess of ingroup over outgroup social associations.¹² The second is not, but it seems plausible, and it is testable, directly and

¹²If it is also assumed that firm group barriers make ingroup choices as likely in small as in large groups, it follows that very small groups, whose few members restrict the choice of ingroup associates, exhibit denser social intercourse, more overlap of friendships, and consequently higher social integration than large groups. (It should be noted that normally the small size of a group exerts pressures to make outgroup choices and depresses the rate of ingroup choices below that in large groups.) Here again we arrive from different premises at a conclusion akin to one of Simmel's (1950:89-90), who points out that the small size of sects whose dogma and distinctive practices insulate them from other groups is essential for their strong ties of social solidarity.

through its implications for intergroup relations.

The more pronounced the heterogeneity, the greater are the chances that people's casual encounters involve members of different groups. Much heterogeneity, therefore, often forces people to choose between interacting with others who are not members of their ingroups and not engaging in social interaction at all. Although individuals may have intimate associates in their own groups, increasing heterogeneity makes the occasions more frequent when the only alternative to socializing with outsiders is to withdraw from social intercourse for the time being. Given the second assumption—that people usually prefer outgroup associates to no associates—heterogeneity exerts structural constraints to enter into social interaction with persons who are not members of one's own group and establish intergroup relations. Group boundaries are barriers to sociable relations, but the proliferation of boundaries implicit in great heterogeneity lessens these barriers and encourages intergroup relations.

The physical separation of groups obliterates this effect of heterogeneity. If the various groups are located in different towns and neighborhoods, most encounters involve members of the same group, notwithstanding the heterogeneity of the total population. In this situation, there is little opportunity for intergroup contacts. The consequent restriction of most social intercourse to members of the same group strengthens group barriers and increases social distances among groups. In other words, differences in location that are highly correlated with people's differences in another respect suppress the impact of heterogeneity on intergroup relations. But this is not a distinctive feature of location; high correlations between two or more kinds of differences among people generally suppress the impact of heterogeneity.

Multiform Heterogeneity

In industrialized societies, numerous nominal parameters produce multiform heterogeneity, which means that every person belongs to a variety of groups and has multiple roles. While this multiform heterogeneity has been alluded to before, it has not yet been explicitly taken into account in the analysis. Heterogeneity in a single dimension,

though pronounced, does not greatly constrain people to establish intergroup relations in a large society. Even when the population is divided into thousands of groups, most groups contain still thousands of persons, which makes it easy to realize ingroup preferences and confine most sociable interaction to the ingroup. But intersecting lines of differentiation increase heterogeneity exponentially, which reduces the size of perfectly homogeneous subgroups to the vanishing point and thereby reinstates the structural constraints to participate in intergroup relations that society's large size would otherwise nullify.¹³

Multiform heterogeneity compels people to have associates outside their own groups, because it makes ingroup relations simultaneously intergroup relations in terms of different parameters. We cannot help associating with outsiders, because our ingroup associates in one dimension are, in several others, members of outgroups (Merton, 1972:22-5). For people to realize ingroup preference with respect to the most salient parameters, they must maintain intergroup relations along other parameters. This is by no means a minor constraint. In complex social structures, so many roles are important that people often must set aside ingrained ingroup prejudices for the sake of other roles. The common interests of automobile workers constrain blacks and whites to join in a union and engage in social interaction, and the common interests of blacks constrain unskilled workers and professionals to join in common endeavors and associate with each other.

From another perspective, multiform heterogeneity means that people in different groups also hold group memberships in common. There are few if any people who do not differ in some group affiliation, and neither are there many who do not share some group affiliation. The shared attributes of persons in different groups are a basis for

¹³ If parameters were perfectly orthogonal, p parameters each of which divides the population into s subgroups would produce s^p completely homogeneous subgroups, which is likely to exceed the number of persons, even in a large society. Parameters are more or less interrelated, of course. Nevertheless, if only two were orthogonal and all other coincided with them, surely an extreme and unrealistic assumption, heterogeneity would increase exponentially.

social interaction when the occasion arises and for developing social relations across group boundaries. This conclusion can be formally derived from the definition of nominal parameters in terms of ingroup associations and the assumption that multiform heterogeneity is so extensive that virtually no persons have all group affiliations in common. If people are predisposed to associate with others who share their group affiliations; and if nearly all people differ in some affiliation, though they share others; it follows that the common group affiliations of persons who in any given dimension belong to different groups will promote social associations across group boundaries in this dimension.

Social norms influence these group processes, but their influence is not independent of the structural conditions resulting from heterogeneity. In largely homogeneous communities, sociable contacts tend to be confined to ingroups, and socializing with persons outside one's own group is a deviant practice likely to be disapproved by normative expectations. The pressures exerted by increasing heterogeneity make social intercourse between members of different groups more frequent and thus a less deviant pattern. The growing prevalence of intergroup relations enlarges the social circles who accept them, which implies that such relations encounter less social disapproval and that normative expectations gradually adjust to them. This oversimplifies the dynamics of developments, however, because deep-seated social norms tend to resist the pressure for change engendered by new conditions. Persisting strong normative disapproval of intergroup contacts often inhibits them despite enhanced heterogeneity. Intensified ethnocentrism when a community becomes ethnically mixed is an example.

But when multiform heterogeneity is pronounced, the predominant ingroup relations along some lines enforced by social norms are necessarily accompanied by intergroup relations along other lines. Besides, different group affiliations are most salient in different contexts—sometimes people's union, sometimes their church, sometimes their neighborhood—and the changing ingroup preferences, depending on the situation, undermine social norms that would preserve certain ingroup preferences. Although social norms can discourage particular intergroup

relations, they cannot neutralize the compelling pressure of multiform heterogeneity on the proliferation of intergroup relations generally; nor are the norms themselves immune from this pressure.

The multiple roles and group affiliations in complex social structures weaken the hold of ingroup ties and alter the form of social integration. People have wider circles of less intimate associates. The cocktail party is symbolic. The attenuation of profound social bonds that firmly integrate individuals in their communities is often deplored. But strong ingroup bonds restrain individual freedom and mobility, and they sustain rigidity and bigotry. Diverse intergroup relations, though not intimate, broaden horizons and promote tolerance, and they are the basis of macro-social integration. Intimate relations, like those in the conjugal family and between good friends, are the main source of social support for individuals. Since intimate relations tend to be confined to small and closed social circles, however, they fragment society into small groups. The integration of these groups in the society depends on people's weak ties, not their strong ones, because weak social ties extend beyond intimate circles (Granovetter, 1973) and establish the intergroup connections on which macrosocial integration rests. The social integration of individuals in contemporary society is no longer based exclusively on the support of particular ingroups but in good part on multiple supports from wider networks of less intimate relations.¹⁴ To use an analogy, a Gothic structure supported by multiple counter-balancing buttresses has replaced a Norman structure with a uniform solid foundation.

It must be stressed that this analysis of the structural constraints that promote intergroup relations assumes that multiform heterogeneity actually exists, which requires that nominal parameters are not strongly related

¹⁴ Simmel (1955:163) notes that the individual in modern society "is deprived of many supports and advantages associated with the tightly-knit, primary group. [But] the creation of groups and associations in which any number of people can come together on the basis of their interest in a common purpose, compensates for that isolation of the personality which develops out of breaking away from the narrow confines of earlier circumstances."

and various lines of differentiation intersect. If parameters are highly correlated—for example, if ethnic differences largely coincide with differences in religion, occupation, and politics—group differences reinforce each other and discourage intergroup relations. Only crosscutting group affiliations impel people to choose among their various ingroup preferences and set aside some, entering into certain intergroup relations, for the sake of others. Coinciding group affiliations, in contrast, make the various ingroup preferences cumulative and strengthen tendencies to restrict sociable intercourse to persons who share most of one's affiliations. The previously mentioned fact that a substantial correlation of location with group differences counteracts the effect of heterogeneity on intergroup relations is simply a special case of the general principle that correlated parameters counteract the impact of heterogeneity.

Status Inequality

The effects of status inequality on social relations and on the integration of social strata in society depend on the form the inequality takes. Diversity of status, which means that few people are roughly equal in status, does not have the same implications for social interaction and communication as a concentration of status resources and powers, which means that a small elite is far superior to the majority. The absence of large and diversified middle strata is the criterion of elite concentration, not the absolute social distance between the elite and lower strata, whatever the measure. Although the difference between the most educated minority and the majority with only compulsory education may be the same in two countries, for instance, elite concentrations would be higher in the one having fewer persons with intermediate amounts of education, because a larger share of the total educational resources would be concentrated in the elite. The same applies to distributions of wealth, income, power, or other status attributes. The distinction between status diversity and elite concentration is an analytical one, and actual status structures reveal combinations of both in varying degrees.

Status differences inhibit social intercourse. That fact is inherent in the very concept of status, and it has therefore been

made a defining criterion of graduated parameters. However, great diversity in status promotes social interaction among persons whose status differs, just as great heterogeneity promotes social interaction between persons in different groups. Much status diversity reduces the social distance between strata and thus the status barriers to sociability. It also creates intervening links between strata, as people bring together acquaintances of higher and lower status than their own. In addition, diversity increases the probability that social encounters will involve persons whose status differs and hence the frequency of occasions for social intercourse that crosses status lines. Moreover, the multiform status diversity that occurs when graduated parameters exhibit weak correlations leads to sociability among persons whose status, though alike in some ways, is not alike in all. For example, people may socialize with others whose status origins, wealth, and income are similar to their own, but whose education and political power are not. Whereas status diversity does not make interpersonal relations between the highest and lowest strata likely, it links them indirectly by fostering personal relations between strata that are not far apart.

Elite concentration of such status attributes as wealth, power, and education is expected to discourage social intercourse between the elite and other strata and encourage it among these strata, for several reasons. It entails great social distance between the elite and the majority. It implies a small middle-class and thus few intervening links that could help bridge the gap between the elite and the rest of the population. It reduces the likelihood of chance encounters between the large majority and the small elite. And it makes the elite interested in preserving their superior position. These very conditions that impede communication between the elite and other strata are likely to facilitate communication across status lines among these strata. The great social distance from the elite and the small size of the middle class diminish the social distance among the lower strata, both in absolute terms and in terms of reference-group comparisons, because whatever status differences exist among them pale by comparison with the difference between them and the elite. The probability of social encounters between persons in the various

lower strata is very great, owing to the large proportion of the population they compose. And the vested interest of the elite to maintain superior status has its counterpart in the common interest of the lower strata to improve their status, providing common grounds for social associations.

What are the implications of status diversity and elite concentration for macrosocial integration? Status diversity contributes to macrosocial integration, as heterogeneity does, though not as much, because it furnishes only indirect links between social strata that are widely separated. Some great social distances that inhibit sociable interaction and free communication are a built-in trait of great status diversity, but deep ingroup prejudices that similarly inhibit sociability and communication are not inherent in much heterogeneity. The multiform differentiation resulting from many weakly correlated parameters, in particular, enhances macrosocial integration. Elite concentration, while it furthers integrative relations among lower strata, widens the breach between them and the top stratum. This adverse effect on the integration of the entire society is magnified if different resources and powers are concentrated in the same elite and consolidate its dominant position. The last section of the paper will deal with the problem of consolidation in social structures.

DIVISION OF LABOR

The next topic is designed to illustrate the analysis of specific forms of differentiation and their relationships. For this purpose, an inquiry into the division of labor is presented, distinguishing its forms, inferring the conditions that govern its forms, and examining its implications for status inequalities. The division of labor refers to the distribution of people among occupational positions. It therefore is synonymous with occupational differentiation.

The division of labor in societies is closely connected with their status structure. Differences in occupational positions are associated with differences in status—in education, income, prestige, and power. In the terms adopted, occupation is a nominal parameter that is associated with several graduated parameters. One might readily assume on the basis of these associations that the degree of

occupational differentiation—the division of labor—is similarly associated with the degree of status differentiation—the extent of inequality in status. But this assumption is not warranted. The relationship between two forms of differentiation is often confused with the relationship between the two underlying attributes of individuals, as Coleman (1973:1525) notes. Although the occupation and education of individuals are correlated, in our society and undoubtedly in most, this does not tell us whether the amount of variation among individuals in occupation and in education are correlated. This can only be determined by comparing different societies or historical periods. As a matter of fact, occupational differentiation is variously related to different forms of status inequality, as we shall see. But first the distinct forms of occupational differentiation need to be analyzed.

Routinization and Specialization

The division of labor increases when new jobs are added to those being performed or when present jobs are subdivided into a larger number.¹⁵ The one is illustrated by the job of computer operator, which did not exist until recently, and the other by automobile mechanics in large garages who have come to specialize in repairing only certain parts of cars. Subdividing jobs narrows the range of different tasks of all jobs or many of them, but the total repertory of tasks remains presumably the same. For instance, if all clerks once both typed and filed, and now some only type and others only file, the range of tasks for each is narrower than before, but the tasks performed by the entire group have apparently not changed. Actually, however, the sheer subdivision of work often gives rise to new tasks.

The subdivision of jobs may take two forms. On the one hand, it may routinize work, because the narrower range of tasks simplifies jobs and reduces the training and skills required to perform them, as when work originally carried out by craftsmen is broken

¹⁵ The variation in the number of different occupational positions is a simple indicator of the division of labor. A more refined one, like the Gibbs-Martin index, takes also the distribution of the labor force among the various positions into account.

into simple routines on an assembly line. On the other hand, it may make work more specialized, as exemplified by the difference between general practitioners and medical specialists. Here the narrower range of tasks permits greater expertness to be acquired and applied to the work, increasing the training and skills needed to perform it. Note that medical specialists execute tasks that general practitioners cannot undertake. The subdivision of work in the form of specialization, without supposedly adding any new work, in fact leads to the performance of new tasks, adding to the range of tasks accomplished by the collectivity while narrowing the range of tasks of individuals.

The basic difference between routinization and specialization is that the first lowers and the second raises the levels of training and skills required of the labor force. The associations of the division of labor with years of training and degrees of skills thus indicate which one of the two forms it assumes. This difference implies that routinization decreases but specialization increases labor costs, which are reflected directly in the wages and salaries an organization must pay its employees and indirectly in the resources a society must devote to vocational training and education. Since it lessens training time and labor costs, routinizing work is a means for improving input-output efficiency and augmenting the results attainable with given manpower resources. By routinizing some of the work of physicians to enable nurses to perform it, expanded health services can be provided by the available labor force without a rise in costs. Specialization reduces strictly economic efficiency, since it requires long training and costly manpower, but it makes completely new accomplishments possible. Medical specialists can accomplish cures unheard of before the age of specialization, and plumbers can accomplish repairs handymen cannot. Routinization contributes to the quantity and specialization to the quality of achievements.

By enlarging output at given labor costs, routinization improves labor productivity; whereas specialization depends on other conditions to improve it and thereby to release the time and resources needed to train specialists. Routinization can consequently help supply the manpower resources specialization demands, which implies that routinization furthers the growth of specialization.

Accordingly, the increasing division of labor simultaneously makes some jobs more routine and others more specialized, enhancing the differences in skills among the labor force, which may be called a bifurcation of skills. In short, routinization, by raising labor productivity, promotes specialization, and the progressing division of labor is therefore accompanied by a growing bifurcation of skills.

This conclusion must be qualified, however, by emphasizing that routinization, though it can contribute to the development of specialization, is neither a necessary nor a sufficient condition for its development. It is not necessary, because other conditions can improve labor productivity and free manpower for specialized training and work, for example, advances in technology. And it is not sufficient, because the mere fact that routine work is performed by people with little training and few skills obviously does not enhance labor productivity. What does is the effective *organization* of complex responsibilities through subdivision into simpler duties that reduce the qualifications needed to perform them. Only within the context of a systematically organized division of labor is routinization likely to raise labor productivity and thus free resources for specialization.

The Formal Organization of Work

Formally established work organizations—organizations whose members are employed to perform work—play an essential part in the development of the division of labor in society. They are the institutionalized mechanism for organizing work in the pursuit of given objectives. Work organizations bring large numbers of people together, and they require joint endeavors that involve dense social interaction and communication. These conditions—large volume and social density—are the two Durkheim (1947:256-62) specified as the main determinants of the division of labor. Indeed, research has shown that the division of labor in organizations increases as the number of employees does, from which one might infer that it also increases with communication density, on the assumption that many employees entail extensive communication. Conditions in organizations are conducive to the proliferation of the division of labor, especially in the form of extensive routinization.

In contrast to emergent social structures, like those of entire societies, organizations have stipulated objectives, such as a government agency's mission, a factory's product, or a corporation's profit. These given ends specify the nature of the output, supplying criteria for defining efficiency, and creating budget constraints to minimize labor costs per output.¹⁶ Besides, organizations have administrators responsible for the efficient attainment of objectives, who have the authority and the incentives to organize the work force for this purpose. An organization's division of labor is administratively enacted as a means to improve operations, unlike society's division of labor, which is the emergent result of the actions of many people pursuing diverse ends, in socialist as well as capitalist countries, the difference between them being a matter of degree.

Organizations meet the conditions suggested above as necessary for the systematic routinization of work, since their division of labor is administratively instituted as a means for efficient performance at minimum labor costs. Hence, one would expect that an organization's division of labor takes predominantly the form of routinization, and that the routinization of many jobs is accompanied by greater specialization of others, manifesting a bifurcation of skills. There are some empirical indications that this is the case. A study of American government offices finds that the division of labor is positively related to the proportion of personnel in routine clerical jobs (Blau and Schoenherr, 1971: 93,218). A study of British organizations reports a parallel correlation, and also positive correlations of the division of labor with the standardization and formalization of work, two other expressions of routinization (Pugh et al., 1968:83).¹⁷ A study of matched

British and American manufacturing firms reveals that the division of labor is positively related to formalization in both (Inkson et al., 1970:361).¹⁸

By routinizing work, the organizational division of labor helps mobilize resources for specialists. The study of government offices indicates that the proportion of routine clerical personnel, independent of its relationships with the division of labor, is positively related to superior qualifications of the professional personnel (Blau and Schoenherr, 1971:218-19). Such bifurcation of skills is also observable in universities and colleges, inasmuch as the academic division of labor is positively related to superior qualifications of the faculty as well as high proportions of routine clerical personnel (Blau, 1973:71-2, 82-3).¹⁹ The resources needed for highly qualified specialists intensify budget pressures in organizations to routinize work and enable less costly personnel to perform it.²⁰

The bifurcation of skills implies that the division of labor intensifies status inequalities. If the manpower resources for specialists come partly from savings realized by routinizing the work of others, specialization and routinization increase together as the division of labor does, extending differences in education and qualifications, and quite possibly in rewards and influence too. Under these conditions, the higher status of the specialists rests on the labor productivity of the low-status workers in routinized jobs. This seems to be the situation in many formal organizations. It may well also be the situation in societies during early stages of industrialization, when much routine work of

¹⁸ The measures of the two variables—"functional specialization" and "formalization of documentation"—are reported by Inkson and colleagues (1970:352, 354) to be similar to, though not identical with, those in the British study just cited.

¹⁹ The measure of division of labor is the number of academic departments in a university or college, controlling its size; that of faculty qualifications is the per cent of the faculty who have Ph.D.'s or advanced professional degrees (Blau, 1973:29, 79-80).

²⁰ In most organizations, the savings in labor cost achieved through routinization may actually supply the resources for hiring specialists with superior qualifications. In academic institutions, the causal nexus is probably the reverse, and the cost of highly qualified faculty creates pressures to save other labor costs and faculty time by routinizing much administrative work.

¹⁶ Such budgetary constraints exist not only in profit-making enterprises, and they put pressure on administrators to try to maximize efficiency by reducing costs, even when doing so sacrifices quality, as is likely unless objectives are sufficiently precise to permit quantitative calculation of results.

¹⁷ The measure of the division of labor in the American study is the number of occupational positions; that in the British study is the number of a priori specified functions performed by at least one full-time employee, which is called "role specialization" (Pugh et al., 1968:72-4, 93-6; for the measures of standardization and formalization, see 74-6, 96-102).

peasants and laborers is required to support a small minority of specialists. However, it apparently is not the prevailing situation in contemporary industrial societies.

Division of Labor and Inequalities

The predominant form of the division of labor in contemporary societies is specialization, as indicated by the positive relationships of occupational differentiation with higher levels of training and skills—of educational and occupational qualifications. Both historical trends and cross-national comparisons reveal these relationships. Occupational differentiation has steadily increased in the United States since the beginning of this century,²¹ the population's education has risen dramatically in that period,²² and so has the proportion of the labor force in professional and technical occupations.²³ Data on more than sixty countries similarly show that a society's occupational differentiation exhibits substantial positive correlations with the level of education (.73) and with the proportion of the male labor force in professional and related occupations (.55).²⁴

²¹ From .919 in 1900 to .990 in 1970, using the Gibbs-Martin index for detailed occupations. Computed from data in U.S. Bureau of the Census (1960: 75-8 and 1973: 1-718-24). If broad occupational groups are used, the increases in occupational differentiation, as measured by the Gibbs-Martin index, are concealed after 1930 (the values are .784 for 1900, .897 for 1930, and .869 for 1970), because some of the formerly small occupational groups have started to expand beyond their proportional share of the labor force, notably "professional, technical, and kindred workers" and "clerical and kindred workers." Detailed occupations reflect the continuing increase in division of labor within these and other major occupational groups.

²² The median years of school completed has increased from 8.2 at the beginning of the century to 12.6 in 1970. The first figure is estimated and the second computed from U.S. Bureau of the Census (1960: 215 and 1973: 1-1623-4). Years of schooling is naturally an imperfect indication of vocational training (See Berg, 1971), yet broadly speaking better educated people tend to have superior occupational qualifications.

²³ The increase in "professional, technical, and kindred workers" has been more than threefold, from 4.3 to 14.5 per cent, between 1900 and 1970 (U.S. Bureau of the Census, 1960: 74 and 1973: 1-718).

²⁴ The measure of occupational differentiation is the Gibbs-Martin index, based on ten occupational categories, computed from data in International Labor Office (1972). (The problems encountered

If the growth of specialization in today's societies depended on a growth in routinization and hence on a bifurcation of skills, then the advancing division of labor would be positively related to inequality in educational qualifications; whereas it actually is negatively related. A pronounced division of labor reduces elite concentration of superior education,²⁵ and possibly enhances diversity in education, because people cannot engage in a variety of more or less specialized work if most have only a few years of schooling. The increase in the division of labor in the United States during this century has been accompanied by a great decrease in educational inequality, as observed in two different analyses of census data, one using the Gini coefficient (B. Duncan, 1968:619) and the other the coefficient of variation (Jencks, 1972:20-1). Although cross-national data to measure educational inequality are unavailable, a rising level of school attendance, which is the cross-national measure of education, virtually always reflects a decline in educational inequality. Hence, the strong correlation between occupational differentiation and education (.73) makes the inference highly probable that a country's division of labor is also inversely related to its inequality in education.²⁶

with measuring occupational differentiation in terms of broad categories in the United States—see footnote 21—are unlikely to distort the comparisons substantially, because most countries have only small proportions of their labor force in expanding occupations, and because the variation in the differentiation index is so great, ranging from .23 to .83) The measure of education is the adjusted school enrollment ratio, the proportion of the estimated population 5-19 years of age who attend school (see Taylor and Hudson, 1971: 39-40). The number of cases is sixty-four for the first and sixty-five for the second correlation reported. These results (and others cited later) have been obtained in a preliminary analysis of cross-national data for 1965 by Zeev Gorin and myself. The major source of these data is Taylor and Hudson (1971).

²⁵ All empirical measures of inequality used in research refer primarily to elite concentration rather than status diversity, as noted before.

²⁶ If a pronounced division of labor in today's industrial societies results primarily in more specialization and lessens inequalities in education qualifications, why does a pronounced division of labor within numerous organizations in highly industrialized societies promote primarily routinization and enhance inequalities in skills? Two admittedly speculative answers may be suggested. First, the budgetary constraints in work organiza-

The expansion of specialization is contingent on society's industrial development. Industrialization, not routinization, primarily supplies the manpower resources required for specialization. As long as the efforts of most people are needed to provide food and other means of subsistence, few can engage in specialized pursuits. Technological and economic developments are essential to lift these restraints and free the time of many for specialized work. A society's technological development, as indicated by energy consumption per capita, is substantially correlated with its occupational differentiation (.51), its population's education (.57), and the proportion of its labor force in professional work (.69), and so is a society's economic development, as indicated by gross national product per capita (the three correlations are .50, .62, and .74, respectively). These strong influences of industrial developments raise the suspicion that the correlations of the division of labor with education and with professionalization may be spurious, resulting from the dependence of all three factors on industrialization. But cross-national data reveal that this is not the case. When technological or economic developments are controlled, the division of labor continues to exhibit positive relationships with education and professionalization.²⁷ The components of

specialization—advanced division of labor, superior training, and high skills—all depend on technological and economic conditions, but the division of labor is related to training and skills independent of these conditions, which supports the conclusion that the increasing division of labor in contemporary societies furthers the spread of specialization.

In terms of the earlier theoretical analysis, technological advances improve labor productivity and free manpower resources for specialized training and work, thereby making specialization no longer largely conditional on the labor productivity effected through extensive routinization. Yet routinization plays an important part in this development. The more the division of labor has routinized jobs, the easier it becomes to have them done by machines. Routinization creates the conditions that enable organizations to mechanize and automate operations, and the savings in labor costs that can be realized furnish incentives for installing modern technical equipment. As machines are substituted for men and women in routine jobs, growing proportions engage in skilled and specialized work. An example is the empirical finding that automating operations in government offices reduces the proportion of personnel in routine clerical jobs (Blau and Schoenherr, 1971:60-1, 93-4, 123-4). Widespread routinization seems to be a stage in the development of the division of labor that intensifies inequalities in training and skills, but further developments of the division of labor resulting from technological progress apparently diminish these inequalities by expanding the specialized and reducing the routine work.

Since an advanced division of labor tends to lessen inequality in education, it should also lessen inequality in income. Whether this is so is a moot question, however. What the American trend in income inequality has been is in dispute. The best evidence indicates that income inequality is lower today than early in the century but that nearly the entire decline occurred around World War II, with inequality remaining nearly constant in the two decades before and in the two since (Miller, 1966:esp. 15-28).²⁸ Occupational differentiation reveals

tions may make hiring specialists conditional on savings effected by routinizing other work. Second, unskilled workers can more easily be replaced than those with specialized skills, which weakens their bargaining power and strengthens administrative authority over them; these advantages of routinization for organizations and their administrators may influence the administrative decisions that govern the subdivision of work.

²⁷The high correlation (.92) between energy consumption per capita and GNP per capita (for variable definitions, see Taylor and Hudson [1971: 59-60, 65]) make it impossible to control both simultaneously. The results of the four regression analyses are: (1) with education as dependent variable, the beta weight for energy is .27 and that for DoL (division of labor) is .59; (2) with education as dependent variable, the beta weight for GNP is .34 and that for DoL is .56; (3) with professionals (% of male labor force in professional and related occupations) as dependent variable, the beta weight of energy is .55 and that of DoL is .27; (4) with professionals as dependent variable, the beta weight of GNP is .63 and that of DoL is .23. All beta weights are more than twice their standard error. The number of cases is sixty-four in the first three and sixty-five in the last analysis.

²⁸Data from 1970 reveal little change in income inequality since 1960, the last year for which Miller

a different trend line, with a steady slow increase. Should one emphasize that today the division of labor is more pronounced and income inequality less pronounced than two generations ago, which implies a negative relationship, or that the trend lines are not parallel, which implies no connection? The cross-national data do not resolve the issue. Whereas occupational differentiation and income inequality are negatively correlated for the twenty countries for which fairly reliable income data exist ($-.40$),²⁹ the small number of cases and the data's questionable reliability undermine confidence in the finding. The conservative conclusion is that the division of labor is little related to the distribution of incomes, though there are limited indications that it is inversely related to income inequality.³⁰

In sum, the division of labor in highly industrialized societies tends to take the form of expanding specialization and be accompanied by reduced inequalities in education and qualifications, and possibly also in income and prestige. Does inequality of power similarly decline with growing industrialization and specialization? While no direct measures of power distributions exist, the role of formal organizations in industrial societies

presents data. The Gini coefficient of income inequality—computed from data in Jencks (1972: 210)—is .360 for 1970, and that for 1960 that Miller (1966: 24) presents is .369. The pioneering work on income inequality is Kuznets' (1953; see also 1966), but his argument that income inequality has declined in recent years seems to be convincingly refuted by Miller (1966: 20-6).

²⁹Based on the Gibbs-Martin index of occupational differentiation and the Gini coefficient of income inequality among occupational groups. The income data are taken from Secretariat (1967) and Economic Commission (1971), supplemented by the data on a few additional countries from Kravis (1973: 67). When the more widely available data on income inequality among industrial sectors (Taylor and Hudson, 1971:82-3) are used as proxy for occupational income inequality, as suggested by Kuznets (1963), they reveal a significant negative correlation ($-.46$) with occupational differentiation (based on forty-three countries).

³⁰The reason that educational inequality has declined substantially while income inequality has declined less (B. Duncan, 1968: 618) may be that people's successful demand for more education, which helped raise the level and reduce the inequality of education, has exceeded the qualifications needed by employers (Berg, 1971). A further reason is perhaps that executives have been unwilling to make the technological adjustments required to capitalize on this educated labor force.

makes this most doubtful. Power in contemporary society is primarily exercised through organizations, the largest of which are giants, in manpower and economic resources, and continue to expand. In manufacturing, for example, firms with more than 1,000 employees increased their proportion of all employees from 15 to 33 per cent between 1909 and 1967.³¹ And the share of all corporate assets in manufacturing held by the 100 largest firms rose from 35 to 48 per cent between 1925 and 1967 (U.S. Cabinet Committee, 1969:45,92). The concentration of manpower and economic resources in huge organizations implies a corresponding concentration of the powers senior executives derive from their authority over many employees and vast financial assets. While inequality in education has declined in the United States, and inequality in income has at least not increased, the concentration of resources and powers in giant organizations and their top executives has grown.

CONSOLIDATED INEQUALITIES

The final topic is the significance that the interrelation or consolidation of parameters has for social change and life in society. These relationships between parameters must be clearly distinguished from the relationships analyzed in the preceding discussion between one form of differentiation and another. Instead of asking how strongly society's division of labor is related to inequalities in education and income, for instance, the question now is how strongly the occupational positions of individuals are related to their education and income, their sex and race. Most social research deals with such associations between attributes of individuals. Concern here, however, is not with accounting for variations in one social characteristic of individuals by variations in others, as in conventional survey research, but with the extent of association of these characteristics as a distinctive emergent attribute of social structure. Strong associations reveal that the social structure and inequalities in it have become consolidated, which has important

³¹Computed from U.S. Bureau of the Census (1917: 391 and 1967: 2-5). Data for eight intervening years were also computed (using corresponding Census sources for other years), which show that the sharpest increases occurred during World War I and World War II.

consequences for social change and for social life generally.

The Dynamics of Mobility and Conflict

Multiform differentiation is at the roots of the dynamics of social change. It attenuates ingroup relations, which confine people's perspectives, and intensifies intergroup relations, which foster tolerance and flexibility. It stimulates not only processes of social interaction and communication among diverse groups but also processes of social mobility. Highly integrated groups do not readily accept outsiders, and strong ingroup loyalties discourage persons from leaving their groups. Lack of opportunity for social mobility fortifies ingroup allegiances. Since social mobility, broadly conceived, is essential for change, profound ingroup bonds tend to inhibit structural change.

Social mobility is the process through which social structures adjust to changing conditions by changing themselves, inasmuch as structural change involves, in terms of the conception employed, that the distribution of people among social positions is altered, typically as the result of people's movements between positions. For example, conditions produced by the Industrial Revolution gave rise to more urbanized and industrialized social structures, and these changes were brought about by two kinds of movements of persons, migration from rural to urban places, and occupational mobility from farm to industrial work. Recent advances in technology and productivity altered the occupational structure and expanded the professions by opening channels of upward mobility into professional jobs. Emergent value orientations engender structural change also by precipitating moves of people from one group to another. The Reformation changed the religious structure of societies, because it prompted people to leave their religious group and move to another church. For a new ideology to change the political structure, it must induce supporters of the old parties to abandon their political positions and join the new social movement. Implementing demands for the redistribution of wealth requires downward mobility of wealthy persons.³²

The processes of social mobility that adjust social structures to changing conditions stimulate further mobility by weakening ties within subgroups and strengthening those among different groups. Outmobility at high rates disrupts the network of close social relations that unifies a subgroup and sets it apart. Imobility of many newcomers—"strangers in our midst"—undermines group solidarity and exclusiveness. Extensive intergroup mobility gives many persons social connections in two groups. The consequent lower barriers among groups encourage intergroup mobility independent of any new conditions creating pressures on people to alter their group affiliation, and the prevalence of mobility makes social structures more flexible and less resistant to change when new conditions do call for structural adjustments. In short, social mobility and structural change reinforce each other. Once deep attachments to narrow social circles have begun to dissolve, mobility and change gather momentum. But this trend may be reversed if the consolidation of various lines of differentiation creates new structural rigidities.

The significance of multiple lines of group affiliation for conflict and change has been analyzed by Coleman (1957:21-3) and Lipset (1960:21-32, 88-92). Change in society is often preceded by social conflict, and the pattern of conflict and change depends on the form of differentiation. In a complex social structure with many lines of differentiation, every person is affiliated with a variety of overlapping groups. Conflicts in this situation tend to lead to different alignments on different issues. For instance, union and management, on opposite sides at the bargaining table, may fight together for higher tariffs for their industry. When a controversy arises, many individuals are put under cross pressure, because they belong to groups or have friends in groups on both sides; and many organized groups experience internal disputes over what side to take, because their membership includes persons whose other group affiliations and associates pull them to opposite sides. These internal conflicts of

people among groups or strata. But the structural adjustments that often occur in response to the changed conditions produced by differential fertility do entail social mobility. For example, the high birth rates of farmers create pressures to move from farms to cities.

³² Not all changes in the social structure depend on social mobility, though most do. A notable exception is differential fertility, which changes the population distribution without involving moves of

individuals and internal disagreements in groups discourage taking extreme positions and resorting to drastic measures against the opposition. They thus dissipate the conflict over the issue in society. Besides, the regroupings that divide society along new lines in different controversies prevent antagonisms from becoming unrelenting hostilities between the same opposing camps. The less severe conflicts permit piecemeal adjustments, and social change is incremental, occurring in response to diverse forces at varying rates in different spheres.

What the authors summarized above fail to stress, however, is that multigroup affiliation is not a sufficient condition for these ameliorative social processes. Another condition that is necessary is that the various lines of differentiation—parameters, in my terms—neither coincide nor are closely interrelated. For lasting cleavages and disruptive strife to be averted, people must not only have multiple roles and group affiliations, which is inevitable in complex society, but the various parameters that differentiate their social positions must be independent dimensions that subdivide them in entirely different ways, which is by no means inevitable. Granted that industrial societies are characterized by many lines of differentiation, this fact does not produce interlocking groups and strata that mitigate conflict unless these lines of subdivision are by and large uncorrelated. Only more or less orthogonal parameters generate the multiplicity of intersecting groups that underlie gradual adjustment and change. Consolidated lines of differentiation completely alter the situation, with profound implications for society's integration, social change, and human experience.

Structural Consolidation

A social structure is consolidated if parameters are substantially correlated and social differences among people in one respect are markedly related to their differences in others. Of special significance are interdependent graduated parameters, because they have a direction whereas nominal parameters do not. Vertical status differences are cumulative in a sense in which horizontal group differences are not. The more closely correlated are differences in resources, training, skill, prestige, authority at work, economic power, and political power, the

more consolidated is the status structure. When these graduated parameters are also closely related to such nominal parameters as race, sex, and religion, consolidation is still more pervasive.

Consolidated parameters counteract multi-form differentiation and consequently impede macrosocial integration, which rests in a large society on the intergroup connections engendered by crosscutting lines of differentiation. Highly correlated parameters transform a multitude of subgroups that differ in some ways yet have something in common into relatively few larger subgroups that differ in many ways and have little in common. To use a grossly oversimplified illustration, five dichotomous parameters generate thirty-two subgroups all but two of which share at least one attribute, unless the five parameters coincide, in which case there are only five subgroups whose members differ in all five ways and have nothing in common. The social distinctions resulting from consolidated parameters reinforce one another and widen the social barriers among groups, compelling individuals to turn to their ingroups for social support, which fortifies subgroup solidarities and inhibits the intergroup relations that are essential for macrosocial integration.

Moreover, the consolidation of lines of differentiation makes the social structure more rigid and resistant to change. If groups and strata intersect little, the scarcity of social connections between them reduces flexibility by depriving the social structure of channels of mobility and communication for making adjustments when conditions change and for reaching compromise when interests conflict. In a situation in which people exhibit largely parallel social differences, conflicts over various issues do not give rise to realignments of allies but entail confrontations of the same opponents in controversy after controversy. Entrenched positions encompassing numerous issues and mounting hostilities leave little room for concessions to arrive at mutual adjustments. The rigidity in consolidated structures is an impediment to gradual social change and fosters the revolutionary situation described by Marx in which social change is repressed until it erupts violently.

Last but not least, consolidated lines of differentiation greatly intensify status inequalities by making them cumulative. The consolidation of graduated parameters is the

structural counterpart of status consistency, but what looks like perfect balance from the sociopsychological perspective—the consistency of the various statuses of individuals—turns out to be an extreme imbalance from the structural perspective—all status privileges accrue to some people and all status burdens are imposed on others. Although conditions are never that extreme, they are more likely to resemble this polar case than its opposite. If superior income compensates for inferior prestige, for example, inequalities are alleviated. Income and prestige are not inversely related, however, nor are most other aspects of hierarchical status. Social inequalities are greatly magnified when strongly correlated parameters produce status distinctions along lines that reinforce one another, and some people enjoy many status advantages while others are oppressed by multiple status handicaps.

Highly differentiated social structures are inescapable in industrial societies; and though not all forms of differentiation involve inequalities, some status inequalities may also be unavoidable. Yet it surely is not impossible to diminish the severe inequalities engendered by pronounced consolidation of status. Here we are admittedly in the realm of value judgments. Structural consolidation not only aggravates inequalities but simultaneously has detrimental consequences for both the integration of diverse groups in society and the dynamics of adjustive change of society. The combination of these three implications of consolidation is the reason that extreme forms of it create a revolutionary situation, when there is much incentive to adopt a radical ideology for groups who have long suffered from multiple inequalities, who are not integrated in the mainstream of society, and who have experienced little adjustment of their deprived conditions. This describes the circumstances of American blacks, which makes it not surprising that some of them, after centuries of oppression, advocate revolutionary change.

How pervasive is structural consolidation throughout American society? The empirical evidence gives an equivocal answer. On the one hand, many parameters are far from perfectly correlated, which shows that cross-cutting boundaries and interlocking groups exist. On the other hand, many social differences among people are substantially

correlated, which reveals considerable consolidation. Let us assume we can usually account for about one half of people's differences in one status attribute by their other differences, which is not implausible. Would this indicate much consolidation or little? The answer depends on one's perspective, particularly since we lack similar data from other societies or earlier periods to make comparative judgments. Whether resources and powers are less consolidated and centralized in the United States than in other countries, as we blithely assume, is not at all certain. But even if true, a threat of growing consolidation exists in our society and other industrial ones.

The Threat of Consolidation

What poses this threat is the dominant position of powerful organizations in contemporary society, such as the Pentagon, the White House, and huge conglomerates. The trend has been toward increasing concentration of economic and manpower resources and the powers derived from them in giant organizations and their top executives, which implies a growing consolidation of major resources and forms of power, notably authority over employees, power in diverse markets, and political influence. This consolidation of powers is incompatible with democracy, which depends on checks and balances to protect the sovereignty of the people. That some other societies are still more centralized than ours is small consolation if we are, as we seem to be, on a rapid course to join them.

Such consolidation of powers of informal organizations may well recreate the rigid social structures that in earlier eras resulted from undeviating ingroup loyalties, but without the firm social support and deep social roots characteristic of integration in a clan. The extreme inequality entailed by consolidation, moreover, impedes the macro-social integration of society. Although large organizations are essential for industrialized society and, indeed, for modern democracy, their consolidated powers seriously endanger the integration of the diverse parts in industrial society and the counteracting forces permitting gradual change in democracy.

This is the challenge of the century: to find ways to curb the power of organizations in

the face of their powerful opposition, without destroying in the process the organizations or democracy itself. Unless we can meet this challenge, the growing consolidation effected by organizations is likely to replace democratically instituted recurrent social change with alternate periods of social stagnation and revolutionary upheaval.

The threat is serious, and the time is late. Let us remember that we are within a brief decade of 1984. And let us endeavor to prove Orwell a false prophet.

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