CHAPTER 17

Macrostructural Theory

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The introduction summarizes the views of two philosophers of science on the method of theorizing. The main section has two parts: the first deals with the effect of size differences on intergroup relations, and the second presents the macrostructural theory. I conclude with a synopsis of test results of the research on the theory's implications and a brief summary of the most interesting findings.

METHODOLOGICAL INTRODUCTION

Karl Popper is the most prominent 20th-century representative of logical deductionism. His major publication, *The Logic of Scientific Discovery*, (1935/1968) has become the model of deductionism in this century. Two persons who have influenced his work were Bertrand Russell and Ludwig Wittgenstein. Russell was a mathematician and philosopher, whose widely influential book was *Principles of Mathematics* (1903/1938). Wittgenstein's major publication, *Tractatus Logico-Philosophicus* (1921/1933), on the relationship between logic and language, inspired the positivism of the Vienna Circle, through Wittgenstein rejected their positivism in preference of more refined deductionism.

In his classic book on deductive theory, Popper distinguished universal and existential statements. As a strict logician, Popper emphasizes that the more general universal (his term for theoretical) statements cannot be affected by the less general existential (his term for empirical) statements. This raises an important question: If a theory cannot be rejected by a single empirical implication that the data prove to be wrong, does it not make it impossible to falsify any theory?

Popper gives an ingenious negative answer to this question. As a consistent logician and yet without making all theories infallible, he starts by agreeing that the narrower existential data cannot influence a theory's universal propositions. He remains a strict logician, even at the cost of having to admit that one of his universal statements may not be universal. To be sure, a less general empirical proposition cannot influence a more general theoretical proposition. However, the logical deductions from a theory's universal proposition must be correct.

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A single false deduction from a theory's universal propositions shows one or more of them cannot be correct, and this inadequacy of its predictions, not the empirical data, require the theory to be rejected. (This sounds like sophistry, but is it not what scientists do when they accept test data and reject a theory failing to predict them?) Popper concludes that deductive theories can be tested, possibly falsified, and if not falsified in repeated tests they may be considered to be corroborated and provisionally accepted. [This is not very different from Cohen and Nagel's (1934/1951) criterion of accepting a theory on the basis of probable inference from repeated tests, which Popper dismisses as illogical.]

I was fascinated by Popper's deductive theory and his clever method of testing it. Having my sabbatical and being invited to spend the year at Netherlands Institute for Advanced Study (NIAS) in 1975–1976, I decided to take advantage of this opportunity and try to construct a macrostructural theory following Popper's model and simultaneously Braithwaite's, also a deductive theory. Whereas Popper acknowledges the significance of empirical research for testing theories and shows how to derive from a theory its empirical implications to test it, he dismisses any suggestion that logic may contribute indirectly to developing theories as illogical.

Maybe so, but this merely shows the limitations of logic for the advancement of science and does not help the working scientist. (It also contradicts the implicit claim of Popper's book, titled *The Logic of Scientific Discovery*.) The word *discovery* implies he would give hints about how to discover or at least construct theory.

Of course, one cannot logically derive a more general from a less general statement, but that does not mean that it cannot indirectly help in deriving one, perhaps by inference from research findings. Inference is not logical deduction, and one has no idea whether an inferred theory is correct. But whatever means for creating a new theory are used—imagination, other theories, remarks made in discussions with colleagues—none gives assurance or even realistic hope that the theory is valid *before* it has been tested.

Impressed as I am with Popper—as illustrated by the deductive character of the theory presented below—I am disappointed that he fails to discuss anything about constructing theory. I also disagree with his criterion for theoretical statements that they must be universal statements, for I consider the distinction between theoretical and empirical propositions more profound than that between 100% and 99%, or even 90%. But I am in full agreement with his implicit claim that theories should be logical models. Maybe his and my Viennese roots made us susceptible of the positivism of the Vienna Circle, for deductivism is surely a positivistic approach.

Lakatos (1970) distinguished sophisticated falsificationism from its naive form, claiming loyally that the former was already implicit in Popper's writings. His basic point is that theories should be neither rejected nor accepted on the basis of a single test result, because either may be happenstance. He stressed that complex theories have applications in diverse fields, and they are considered to be corroborated only when numerous tests have confirmed their empirical implications in several different fields. By the same token, a single negative outcome, or a few, should not lead to the rejection of a theory widely accepted and supported by many scientists, but inadequate procedures or failings of investigators should be held responsible for the failed results. Only repeated research findings disconfirming a theory should arouse suspicions of it, leading to attempts to improve it or discover a better one. Even then, a theory should only be rejected, Lakatos concluded, after a new superior theory has been discovered, one that has a wider range of implications that do not fail empirical tests.

Braithwaite's (1953/1955) scientific theorizing is, like Popper's, a deductive theory tested

by its logical implications, but there are interesting differences. Braithwaite made an interesting suggestion for inferring theories, which is one reason, but not the only one, for my great admiration for him and my sorrow that he and his work seems to have been forgotten. Perhaps the most important difference from Popper is that Braithwaite also stresses the significance of empirical data, not only for testing, as Popper does, but also for deriving theory, which Popper dismisses as illogical. He also differs from Popper in the defining criterion of theoretical propositions: Popper's criterion for theoretical statements is that they are universal, but Braithwaite's criterion is that they must explain empirical data and specifically should be *abstract* explanations of them.

Granted that logic cannot be used directly to produce theories, for doing so requires imagination as well as logic, logic can help. Braithwaite stresses the empirical grounding of theory, which is largely neglected by Popper, and he treats empirical data as essential not only for testing theory, as does Popper, but also for creating theories, inasmuch as explaining empirical generalizations is the very purpose of theoretical generalizations.

But what is an explanation? According to Braithwaite (1953/1955), it is "an answer to a 'Why?' question that gives some intellectual satisfaction" (pp. 348–349). This is surely too vague; and indeed he specifies with an ingenious clue for developing theory:

> To explain a law [empirical generalization] is to exhibit and establish a set of hypotheses from which the law follows. It is not necessary for these higher-level hypotheses to be established independently of the law which they explain; all that is required for them to provide an explanation is that they should be regarded as established and that the law should logically follow from them. (p. 343)

This statement has been much criticized by humanistic social scientists who prefer interpretive meaningful theories and criticize theories that attempt to be rigorous and logical as attempts to mimic natural sciences.

I, however, find this conception of theory congenial, particularly because I am very impressed by Braithwaite's sophisticated elaboration of his conception of theories and their construction. I also think that social scientists can do worse than taking theories in the natural sciences as their model. Braithwaite's criterion for distinguishing theoretical from empirical generalizations is that the former are abstract, which itself is a more abstract criterion for theory than Popper's criterion of universalism, which I above criticized.

To explain several abstract propositions, one must infer a more abstract proposition that implies, and therefore explains, all of them. Such multilevel abstractions exist in physics and probably in other natural sciences but not in social science, and Popper's model enabled me only to produce a one-level abstraction, as shown in the next section. This may be the result of my limitations, those of social science, or a combination of the two.

Richard Braithwaite influenced my thinking very much and so did Georg Simmel (1923/1965). The task of theoretical sociology, according to Simmel, is to analyze the social forms themselves, abstracted from their contents. Whereas abstractions are not empirical facts and abstract forms cannot be observed to test abstract theories, their diverse empirical manifestations can provide such tests. Despite my having long admired Simmel, I had not realized that the parameter concept in my theory is akin to Simmel's concept of social forms. (Similar but not identical, since Simmel's forms refer to social processes, whereas my parameters are dimensions of social structure.) Neither had I realized, when I came to admire Braithwaite's abstract model of theorizing, that Simmel's idea of social forms had provided a sociological procedure for theoretical abstraction, thereby, so to speak, anticipating Braithwaite's insight of the importance of abstraction in theory.

THE THEORY IN TWO PARTS

Size and Interpersonal Relations

The central concern of macrostructural theory is how the structural conditions in a community or population affect people's social life. To be sure, the structural conditions themselves were produced by people—who had children and educated them, built and maintained houses and churches, and established local traditions—but these were members of previous generations. Whereas influences of preceding generations on the changing social structure are of great importance, it is largely studied by historians and historical sociologists. Most sociologists' interests center on the influences of existing social conditions on people's social life, and for structural sociologists this means the effects of structural conditions.

The study of the influences of social structure on people's interpersonal relations analyzes how population distributions among positions along various lines affect human relations. My definition of social structure is a multidimensional space of social positions among which people are distributed by their characteristics, such as age or income. The term "social position" is used broadly to refer not only to various group affiliations, like that of a soldier or salesman, but also differences not yet categorized, such as living on the upper west side of Manhattan or being intelligent. In short, all social differences among people that may affect their social relations are considered differences in social positions. The differences may be a dichotomy, like sex, or have multiple categories, like occupation, or be continuous variable, like age.

Another triple-categories scheme, used in the theory to be presented, entails three types of population distributions: heterogeneity, equality, and multiplicity. Heterogeneity refers to diversity in categorical variables, such as occupation. Inequality entails differences in a continuous variable, like income. Multiplicity refers to the number of dimensions of human differences being considered in an analysis. The total number is very large and unknown. Limited numbers are used in any analysis. Most often two dimensions are being compared, such as race and income. (The negative correlation between being black and income level is a blemish on our democracy.)

Intergroup relations (this dichotomy will be used so often that the abbreviation, IR, will be used for it in the rest of the chapter) are more interesting than in-group relations, if only because IR are less frequent, as many studies have shown. (It makes actually little difference which rate is reported, because either reveals the other, the two being complementary.) An additional reason of their significance is that in-group relations strengthen solidarity and social support but engender group barriers, making IR essentially important for the social cohesion of communities and larger collectivities, notably in entire nations. The dichotomy in-group–IR is misleading, because it seems to imply one in-group and one outgroup (IR) relation. But every person has many characteristics and every social relation involves simultaneously numerous ingroup and IR.

In presenting a synopsis of the theory, I shall not confine myself to the abstract theorems but will illustrate how these abstract theoretical propositions imply empirical predictions with which the theory can be tested. In the book in which I originally presented the theory, I was eager to show how widely it was applicable to different subject matters. I ended up with more than 180 propositions (Blau, 1977). Only later, after having read and admired Braithwaite as well as Popper, I revised the theory, using only three major terms: heterogeneity, inequality, and multiplicity. These three are used in the major abstract theorems, which I shall present with illustrations of their empirical applications. The theorems meet Braithwaite's criterion

that theorems are abstract, through I was not able to infer them from empirical data, nor was I able to conceptualize multiple levels of abstraction. I do not know whether this is my fault or is due to an intrinsic difference between the social and natural sciences These three abstract terms do not strictly imply, but they can be used to derive empirical implications, which furnish tests of the theory and are so used when presenting the theory below.

The initial spark of an idea that stimulated my theory on the influences of various social differences in relations among people was to distinguish sociology from psychology. To do so, I asked myself which attributes of a population are not based on the attributes of its individual members, like mean earnings or death rates. I could think of two: the differences among group members and the intergroup relations between all pairs of them.

Knowing of the prevailing in-group preferences that often have been documented, I considered the study of IR of greater interest. Then it occurred to me that the size of groups is an objective condition of all groups that affects individual members' likelihood of associating with members of other groups. This probably occurred to me because I had found in earlier studies of formal organizations that their size exerts a strong influence on their characteristics. Although my theory does not include the implications of size differences, I am presenting them and their important practical implications here as an introduction to the theory.

To start thinking how size differences might influence IR, I first simplified matters by considering only two groups of different size. For only two groups, the number of persons engaged in dyadic group IR (spelled out for emphasis) must be the same, since each pair must consists of one from each group. The difference in the rates of IR of the two groups, therefore, depends only on their difference in size. The members of the smaller group must participate more (more often or more of them) in IR than those of the larger. The average is the mean rate, but it does not indicate whether there are great or very little differences in rates within groups, particularly in the smaller, who are constrained to have a higher IR rate than the larger.

Without knowing whether all members have higher rates or a subset of them has particularly high rates, it is impossible to infer from the rates of individual members. We can only infer that the mean IR in smaller groups is larger than that in larger groups, but one cannot predict the rates of specific members or even how much they vary. The mean size of both groups provides the probable IR of both groups' members. This suffices for drawing practical implications.

It implies that members of minority groups have much higher rates of intergroup contacts than those of the dominant majority, which in turn implies that blacks and Hispanics, the two largest ethnic minorities in the United States, have much higher rates of contacts with the members of the white majority than whites have with them. Hence blacks and Hispanics know more whites and undoubtedly have a better understanding of whites than whites know and can understand blacks. The same could be said for other minority–majority differences, such as Jews and Christians in the United States, though not in Israel.

MACROSTRUCTURAL THEORY

The macrostructural theory's fundamental substantive assumption is that the probability of social relations depends on opportunities for contact. This may sound like a tautology, since both terms—social contacts and social relations—are sometimes used for the actual associations between persons. Opportunity for contact refers here, however, not to actual social interaction between persons but to being in the same location, not only living in the same place but also working in the same shop or office, belonging to the same club, shopping regularly in

the same supermarket, or frequenting the same bar. Even if the two words do not literally mean the same, however, one may ask whether it is not quite obvious that people are more likely to associate if they have opportunities to do so than if they have never seen one another. In a sense it is, if we mean by obvious that it is so likely to happen or that it could occur by sheer chance.

The assumption is essentially a reflection of the mathematical law of probability: the closer people are in space, the greater the likelihood that they meet, which in turn increases the chance or probability that they will start to associate. But if reference is to established relations that are not mere fleeting acquaintances, probability suffices to make the case far from obvious, notably for IR. People do not tend to become friendly with just anybody they encounter on a street or a bus.

Chance encounters, however, often turn into acquaintances, and these sometimes grow into personal relations. A few personal relations ripen into lasting friendships and close friendships between members of the opposite sex often become love relations. Not all lovers get married, of course, but most marriages, optimists hope, are based on love, not on convenience. Most chance meetings do not become marriages, of course, but many if not most marriages started as chance meetings, less likely on the street than in private homes, in schools, or on jobs in factories and offices.

The main dimensions of social differences in my theory are heterogeneity, inequality, and multiplicity. They make it possible to draw parsimonious distinctions about the fundamental and generic differences among people. Definitions of the differentiation parameters and a single assumption suffice for deriving theorems.

The degree of heterogeneity in a population depends on the number of different groups and how irregular the population's distribution among them is. But a more precise definition is required for theorems to imply predictions about heterogeneity that can be measured. This precise definition specifies that heterogeneity is the chance expectation that any two persons in the population differ in a given dimension.

Inequality refers to differences in degree, from an abstract maximum of infinity and minimum of zero (I do not consider minus infinity a meaningful term). Realistically, differences in inequality must be set by empirical maxima and minima, although even these are often difficult strictly to determine. Many people consider Bill Gates the richest person in United States, and possibly in the world, but I do not think anybody has an idea who of the many very poor people is the very poorest. But wealth is not the only difference in degree. Athletic contests establish world records in many fields. Nevertheless, inequality in income and standard of living is very important. If a small minority is very rich and a large proportion of the population is quite poor, it is a serious flaw for any country and a particularly grave one for a democracy.

Multiplicity refers to the number of differences in a population. This number is, of course, not known, and even the number of known differences would be virtually innumerable. Realistically, multiplicity (multiple, for short) refers to the number of known differences a given investigator takes into account. These are most often two, or the means of several pairs.

However, for multiple continuous variables, means and other statistical measures easily can be combined for comparisons of large populations. For example, the income of all college graduates for a certain year (or decade) in different states or regions can be compared, and so can the income differences in the same occupations between blacks and whites, as well as those between women and men. For specific multiple continuous differences, there are terms to indicate how independent or interdependent they are. The former—degree of independence— is called "intersection" and the latter—degree of dependence—is called "consolidation." Intersection and consolidation are complementary; either reveals the other ($X + Y = 1.00$).

The heterogeneity theorem is the first illustration of my theory. If heterogeneity is defined by the probability that any two member of a population belong to different groups, and if social relations are assumed to depend on contact opportunities, it follows that the chance of encounters of two members of different groups increases with the population's heterogeneity. To be sure, most casual meetings are soon forgotten, but no new associations could ever develop if two strangers were never to meet and no new friendships could if acquaintances were never to lead to closer ties. Some chance meetings lead to brief associations, some of these ripen into closer relations, and a few may become friendships or even intimate ties. Our strongest relations, except those with our families, frequently originate in casual encounters, such as a few words exchanged after an introduction by a common friend.

The theorem is formulated in abstract terms, for heterogeneity is a social form devoid of substantive content that gives it meaning. The general proposition implies specific empirical statements that supply substance and meaning. The theorem's empirical expressions provide tests of it. Failure of any test, of course, implies the theory is falsified, according to Popper and at least is made questionable, according to Lakatos. Of eight tests made, all except one, race (in two versions: a dichotomy and multiple categories), shoed that the degree of heterogeneity increased intermarriage (Blau & Schwartz, 1997, p. 44).

The inequality theorem's implications derived from its definition and the assumptions are surprising. I had thought greater inequality between two persons makes their association less likely, and I said so in a book (Blau, 1977, p. 55). Although the statement for two persons is correct, it is not correct to infer from this the average inequality in the population. (Contrary to my structural perspective that structure effects individuals, I made an inference from what happens between individuals to a population, instead of starting with the population.)

The greater the inequality in a population, the greater is the average status difference between the individuals composing it. The difference between an individual's wealth or income, height or weight, is the average negative difference from those above and the average positive difference from those below her or him, and these will discourage the alters or him from associating. The total difference in the social structure, which is the mean difference between all possible pairs, becomes the common standard and departures from this standard are experienced as being richer or poorer, for example.

A final and important dimension of differences is multiplicity, the number of distinct differences. This number is, of course, very large and unknown. For continuous variables, averages for entire populations can be compared. Examples are the differences in high school seniors' SAT scores in different states or the average income in various occupations. The degree of independence is termed "intersection" and the degree of correlation "consolidation"; the two are complementary and either indicates the other ($X + Y = 1.00$).

There are many dimensions of social differences in a population. People have many characteristics in different combinations, and the strength of the relationships between attributes in various dimensions governs their effect, such as how strongly race is related to income. The consolidation of one dimension of social differences with another enhances their negative effect on IR, thus strengthening in-group ties.

In contrast, a high degree of intersection of two or more dimensions of differences reduces their negative effect on intergroup ties, thus weakening in-group boundaries. The substantial correlation between being white and being rich enhances the social distance between rich whites and poor blacks to an extreme. (There are subtle modifications, however. The very security of their superior social status of rich upper-class whites compared to their upper-middle-class brethren may make it more important for the less rich to keep their distance from poorer people than for the richest.)

In abstract terms, consolidation promotes in-group relations and intersection IR. The two actually refer to the same relationship of two or more dimensions of social differences from opposite perspectives. In other words, the two are complementary: consolidation refers to the strength of relationships between two or more attributes of persons, intersection, to the degree of independence of two or more attributes (how close to being orthogonal they are). The positive influence of intersection is the same as the negative influence of consolidation. The positive correlation of education with income is reflected in the negative correlation between high school dropout and upward social mobility.

The general conclusion of the effects of intersection on IR has interesting practical implications. Pronounced intersection implies great diversity in a population. The more pronounced the intersection of two attributes of people, the greater is the social distance between two groups. Once slavery ended, of course, what happened was not a "happy ending." Pronounced intersection between white landlords and black sharecroppers continued to divide the population in the South for more than half-a-century, and it is still reflected in the consolidation of race and income.

Pronounced intersection exerts considerable structural constraints on IR. This bold assertion may appear in conflict with free will. People are indeed free to associate with anybody, including anybody who is not in any of their in-groups in various dimensions. This freedom to choose associates like oneself in any respect, however, does not imply being free to choose associates like oneself in every respect. Indeed, this is impossible. People have many attributes, particularly in complex societies like ours, and we cannot avoid associating with others who differ from us in some ways. To be sure, we all have free will, but it hardly implies freedom to choose any combination of characteristics of others in one's environment.

Of course, we can only choose persons that exist in our environment, but this is not a serious limitation, at least not in cities, given their great diversity. Our multigroup affiliations necessitate that we make in-group choices sequentially, starting to look for an associate characterized by our most important preference, continuing with the second and adding others step by step until we run out of degrees of freedom, so to speak.

To explicate: the multigroup affiliations in complex societies imply that individuals have many ingroup preferences that greatly vary in importance to them; it also implies that different persons have different combinations of them. People establish rank orders of their in-group preferences, particularly for close or intimate ones, seeking to satisfy as many top-ranking in-group preferences as possible. [A final caveat must be entered here: for our most important choices—love and marriage—the first choice for most of us is a gender out-group one (IR).]

Intensive intersection restricts the ability to satisfy many of these preferences, however. Once we have made our most important in-group choices, we cannot easily find someone who still has another group affiliation or attribute in common with us. The combination of a structure's intersection and a person's satisfying one preference after another increasingly restricts her or his remaining options until one is forced to associate with others who, though sharing several of our affiliations or attributes, are unlike us in still others. Indeed, much intersection implies that any in-group choice in one dimension involves out-group relations (IR) in some others, for increasing intersection involves more and more restrictions on the number of ingroup preferences that can be satisfied.

Social structures exert constraints, yet individuals also have free will. They are free to make choices but not any combination of choices, because social conditions limit opportunities, hence the choices we make limit our further choices. With respect to social relations, people are free to satisfy their important in-group preferences, but their satisfying some

increasingly restricts their further choices. The greater the intersection, the greater are structural constraints to establish relations with persons who, though satisfying our in-group preferences in some respects, differ from us in others. In sum, intersection limits people's freedom to choose associates who satisfy all their preferences, but it does not preclude their choosing associates with the characteristics they value most. Preferences for in-group choices prevail, as indicated by their being observed always in excess of chance expectations. Even in-group choices that are rare, like occupational homogamy, occur more often than chance.

TESTS

A theory's validity must be tested. This theoretical chapter is not the place to report in detail testing procedures (see Blau & Schwartz, 1997, pp. 16–27.) The tests were originally conducted for an earlier study of the 125 largest metropolitan areas in the United States in 1970 (all those with a population of more than 250,000) (see Blau & Duncan, 1967). The independent variable in this empirical study was the ethnic diversity in a metropolitan area. The dependent variable was intermarriage, which is for most people their most intimate social relation, thus constituting a very severe test of the theory.

In the early tests without controls, five of six forms of heterogeneity were correlated with intermarriage, as the theory implies, but one did not. Specifically a Standard Metropolitan Statistical Area's (SMSA) heterogeneity is correlated with its intermarriage rate in respect to national origin, birth region, industry, major occupation, and detailed occupation (logit), but not with respect to race (whether measured by a dichotomous or a multiple variable). The reason is that race is highly correlated with socioeconomic status (SES), which, as noted earlier, distorts its effect on intermarriage. If SES is controlled, racial heterogeneity and intermarriage are significantly related.

An SMSA's mean inequality in education is correlated with a couples' differences in years of education and so are its socioeconomic inequality and a couples' difference in the SES of their parents (but this correlation is not independent of education's). No correlations for intersection's influences are presented, because its influences require controlling the parallel one of heterogeneity or inequality in regression analysis.

As just noted, the parallel effects of intersection with differentiation require that intersection and heterogeneity or inequality are both entered in the regressions of various forms of intermarriage (for a table of results, see Blau, 1994, p. 71). No intersection measure of detailed occupation's heterogeneity is available, owing to excessive costs of constructing one for each of the 444 occupational categories.

Four of five forms of heterogeneity and intersection exert cumulative positive effects on intermarriage, with other structural influences controlled, and so do educational inequality and intersection under controls. Specifically, intersection and heterogeneity in race, nativity, birth region, and industry exert independent influences on the likelihood of intermarriage and so do intersection and inequality in education. But only the intersection of *major* occupational with other differences significantly influences intermarriage; heterogeneity of major occupational groups does not.

In sum, only 1 of 13 tests—that for the effect of heterogeneity in major occupations—failed to support the theory's empirical implications. The theory must be considered falsified by Popper's strict criterion, but in terms of Lakatos' less strict criterion that a single test failing to support a theory supported by other tests need not require a rejection; pending future tests,

which I like to think of as sophisticated falsificationism, it could be tentatively accepted. The greater the heterogeneity in a population, the greater are the chances that marriages involve partners who differ in categorical characteristics.

CONCLUSIONS

I conclude by calling attention only to the findings I find most interesting. These are the distinctions between the seemingly identical differences of every individual with all others and the structural differences between all possible pairs in the population.

The greater the heterogeneity among people, the greater are the chances that two people meeting will differ. But the greater the structural heterogeneity in a population, which is the mean difference between all possible pairs, the more likely are two people who differ to have any relation with one another, including marriage [Empirical tests confirm this for seven of eight differences, all but that in race (two versions of it: a dichotomous and multiple one)].

Inequality between a people decreases the likelihood of friendships. But the degree of inequality in a social structure, based on the differences between all possible pairs, increases the likelihood of status different relations of all kinds, including marriages.

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