Reflections on Structural Differentiation*

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Überlegungen zur strukturellen Differenzierung*


Abstract: The theory of the division of labor and, more generally, of structural differentiation is critically analyzed. The thesis that efficiency advantages are not only a necessary consequence of processes of differentiation, but also by way of certain “feedback” mechanisms — their indirect cause is the major object of the critique. The indeterminacy of an abstract efficiency concept, possibilities to neutralize this conceptual indeterminacy, consequences of structural differentiation for social stratification, the impact of power constellations on its development, differences between different forms and “levels” of structural differentiation regarding causes and consequences, and the importance of process analyses of differentiation constitute the main points of the argument.

Theories about the division of labor and, more generally, about the structural differentiation of functions have accompanied the emergence of the modern world and the attendant radical transformations of social life. The division of labor was treated already by MANDEVILLE and TURGOT as conducive to economic prosperity and progress; it was considered as a phenomenon central for the understanding of modern society and modernization by ADAM SMITH as well as KARL MARX, by HERBERT SPENCER as well as EMILE DURKHEIM; and much of current modernization theory has as its core a theory of structural differentiation of functions (e.g., EISENSTADT 1964b, SMELSER 1959, PARSONS 1961, PARSONS 1966).

Throughout this history, theoretical interest has focused on the consequences of the division of labor rather than on the causal conditions that make for further differentiation. Analysis of the consequences has often been associated with ideological questions of evaluation1. Causal analysis typically has remained at a very high level of abstraction often verging on the broad descriptive generalization that structural differentiation is a recurrent feature of evolutionary change2. In fact, even by moderate standards of theoretical adequacy, most present and past theoretical treatments of specialization and structural differentiation are better understood as conceptual frameworks and general theoretical orientations than as theories in the narrower sense of the term — sets of specific hypotheses that can be

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1 These ideological concerns were particularly frequent toward the end of the nineteenth century

2 EISENSTADT’s assessment of most classical evolutionary works is an apt description of many more recent treatments of differentiation: they tended “to point out general causes of change (economic, technological, spiritual, etc.) or some general trends (e.g., the trend to complexity) inherent in the development of societies. Very often they confused such general tendencies with the causes of change or assumed that the general tendencies explain concrete instances of change” (EISENSTADT 1964b: 375). Actually, the discussion of causal conditions that make for increases in the division of labor was generally more sophisticated around the turn of the century than it is today; see the review of BOUGLÈ (1903: 108–120).
tested as well as used in the explanation or prediction of concrete sociocultural developments. In this essay, I shall review the current state of the theoretical discussion of structural differentiation, offer critical comment on certain points I consider crucial, and make suggestions which may help correct some of the deficiencies identified.

I.

We speak of structural differentiation of functions when two or more units of social structure deal separately with problems which at a previous time were dealt with in combination by one unit. A common example is the differentiation of many economic activities from child raising and other familial concerns so that they are carried out in separate roles and organizations. Structural differentiation is contrasted with structural segmentation where two or more units deal with the same or similar problems.\(^3\)

Both classical economics and current modernization theory stress that specialization and structural differentiation in general increase productivity. However, the relationship between differentiation and efficiency must be considered problematic. Obviously, it should not be determined by definition as is sometimes done, resulting predictably in tautologies when the discussion moves to the “adaptive capacity” of social systems.\(^4\)

The argument that differentiation contributes to efficiency rests on a number of propositions. (1) Separation of instrumental and expressive activities allows the former to be more oriented toward a rational use of available means for the ends chosen. This is of special importance because of one of the fundamental dilemmas of social life—tackling problems of “getting something done” often aggravates problems of “getting along with each other” and vice versa. (2) Similarly, structural division of more specialized instrumental tasks from each other enables each unit to concentrate on and improve the efficiency of certain limited activities. (3) The structural division of simple from complex tasks makes economy of training and more rational allocation of personnel with different skills possible. WILIAM J. GOODE goes so far as to argue that “the modern system is more productive because its social structures utilize the inept more efficiently, rather than because it gives greater opportunity to the more able” (1967:17). (4) Specialization of tasks permits a less ambiguous evaluation of performance and thus both the imposition of stricter work discipline and a closer articulation of performance and rewards than is possible in an arrangement where many tasks are intermingled. (5) Certain patterns of structural division of activities may be a precondition or a necessary concomitant of technological innovations. In this sense, differentiation—but also, on occasion, its opposite—contributes to the increase in productivity due to advances in technology. It is important, however, not to attribute the effects of technological improvements simply to the attendant developments in the division of labor.

It is implausible to assume that these effects should follow any case of structural differentiation independent of further conditions. A more reasonable view would see such effects contingent upon the already existing pattern of differentiation, on the direction and the shape new developments of differentiation take, and on their relation to the environment of the social system under study. These are not simply “empirical questions,” as a common phrase has it, but unsolved theoretical problems.\(^5\)

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3 I shall use the terms differentiation and segmentation both for the process of development and for the resultant relation of units in a social structure.

4 Consider for instance this definition: “structural differentiation is a process whereby one social role or organization . . . differentiates into two or more roles or organizations which function more effectively in the new historical circumstances. The new social units are structurally distinct from each other, but taken together are functionally equivalent to the original unit” (SMELSER 1963: 34; SMELSER 1959: 2).

5 Though unsolved, these problems are not unattended; and the research available strongly supports the contingency orientation proposed. Thus, LAWRENCE and LORSCH (1967), building on previous studies by BURNS and STALKER (1961), WOODWARD (1965), CHANDLER (1962), UDY (1959) and others, argue for a “contingency theory of
Such a contingency view of the relation between structural differentiation and system efficiency receives further support if we look at other possible and plausible consequences of differentiation which indirectly may limit or reduce efficiency. Consider, first, that the effects of differentiation, which have been called a "decline of community," as well as the disjunction of instrumental and expressive activities, the diminution of security in certain statuses, and the sometimes radical simplification of tasks may have consequences for the morale and motivation of people which in turn affect productivity. Second, as I shall discuss in greater detail below, any development of differentiation creates tasks of coordination and integration, the solution of which is a condition for reaping the benefits of differentiation and the costs of which have to be weighed into the balance, too. The popular conception of bureaucracy implies, for instance, that that paragon of differentiation is often less efficient than other ways of doing things because of a proliferation of measures of control and coordination.

These considerations suggest a reformulation of the proposition that structural differentiation improves the efficiency of a social system in reaching its goals: The effects of structural differentiation which enhance system efficiency outweigh those which diminish it. It is likely that this proposition will be wrong under certain conditions and correct under others. To specify these conditions is the task of a more adequate theory of structural differentiation.

II.

I have so far left untouched a problem which is fundamental to any consideration of efficiency and which acquires particular importance when conceptions such as "system efficiency" or "adaptive capacity of systems" are brought into the discussion. When we speak of efficiency we usually do so with the understanding that the goals as well as the value of various alternative means to reach these goals are "givens" beyond the reach of the analysis. If these "givens" are made problematic, if the goals and the value of alternative means are conceived of as variable, then the question whether a specific form of differentiation in fact aids the rational attainment of goals acquires a new dimension of complications: it may do so in terms of one cost-benefit calculus and it may not in terms of another.

The indeterminacy of abstract cost-benefit models is, of course, a central issue in social theory and has been so since roughly three generations. One strategy for tackling it has been advanced by TALCOTT PARSONS, starting with his re-analysis of the theoretical core of the work of MARSHALL, PARETO, DURKHEIM, and WEBER (PARSONS 1937). The most general feature of his strategy is widely accepted — to look for the assessment of costs, in systems involving a plurality of actors. What has remained a bone of contention is the proposition that value consensus is the main mechanism that provides for such an integration of preferences and evaluations. The criticism has been particularly insistent — as well as convincing — when value consensus is understood as spontaneous agreement rather than as the result, in significant part at least, of indoctrination, deceit, manipulation and coercion. Another focus of discussion has been PARSONS’ inclination to think of this integration as characteristic of societies rather than only of less inclusive "pluralities of actors."

It is neither possible nor necessary to treat these questions here in any detail and as general theoretical problems. In particular,

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6 This does not mean its implications are generally recognized. HOMANS’ theory of elementary social behavior (1961) suffers seriously from not dealing with the problem, and LENSKII’s important treatment of stratification (1966) has been criticized persuasively on the same count (FALDERS 1966).
I will leave open the question what role value consensus does play at the societal level. Consensus about some premises of social life may or may not be essential for even minimal social cohesion; at a more concrete level of analysis, however, dissension is sufficiently common to make the assumption of societal value consensus an inadequate instrument for solving problems arising from the theoretical indeterminacy of cost-benefit calculus models. Moreover, it appears even problematic to assume pervasive value consensus for many less inclusive groups and organizations in most societies. To illustrate concretely, what is an advantageous policy in the view of a corporation's management is often detrimental to the interests of the corporation's employees as they define these interests. Such divergence of interests and value commitments is by no means on accidental outcome of random forces shaping individual values and interests; rather it is the result of divergent systemic pressures, of different patterns of socialization and social control, of aspirations and opportunities structured by differential locations in the social structure and differential group associations.

If different groups and categories of actors, participating not only in the same society but in the same smaller groups and organizations, must be assumed to act on the basis of different cost-benefit calculi, conclusions about efficiency effects of differentiation could, in principle, be stated in terms of as many calculi as are identified in the social situation in question. The complexity of the analysis can be reduced by focusing on individuals and relatively solidary and consensual groups who control a disproportionate share of the resources many others are interested in. If the cost-benefit analysis were to be used as a springboard for inferences about vested interests and, further, about likely supports and obstacles for certain developments of differentiation, such a reduction of complexity would be appropriate indeed.

More generally, if the power resources of the various groups and social categories in question, the patterns of difference and overlap in their cost-benefit calculi, as well as the likely development of their interests and value orientations are taken into account, it is possible to reconstruct system properties which are more or less stable and which give indications about the responsiveness of social systems to problems and opportunities of different kinds. This is in fact what is done routinely in the everyday practice of sociology: The indeterminacy of a generalized cost-benefit calculus is overcome by making assumptions — often simple common sense assumptions — about "what different kinds of people are after" and by giving differential weight to different groups and categories of people according to their power. SMELSER (1959), for instance, in analyzing dissatisfactions as the first analytical step of a sequence of phases involved in structural differentiation, does not specify on the theoretical level whose dissatisfaction is crucial. In his empirical discussion of differentiation in the British cotton industry, however, it is the dissatisfaction of the masters, of early entrepreneurs and capital owners that provided the impetus for the development in question.

Such an emphasis on the distribution of power as an aid in overcoming the indeterminacy of abstract cost-benefit models and in reducing the complexity of analyzing multiple cost-benefit calculi receives further support from another consideration. The interests, values and aspirations of actors are in significant measure a function of the nature of the society they live in and of their location in that society. This means that under certain conditions a given development of differentiation may bring about its own validation in the eyes of many actors.

7 Another, less obvious example is involved in his treatment of dissatisfaction initiating differentiation in the family structure. Here, more pervasive dissatisfaction is inferred from estimates of the objective impact of economic developments on working class families, from subsequent disturbances, and from "dominant" values legitimizing dissatisfaction. Though not an expert in this area of research, I suggest that the values sketched are much more likely to be representative of the values of the dominant classes than of the values of common workers involved. (SMELSER 1959: 209--213).

8 The clause "under certain conditions" must not be interpreted as implying that in fact everything about this issue is uncertain. To discuss this in any detail obviously would lead me far astray. CARL SCHMITT's suggestive formula of the "normative Kraft des Faktischen" (normative force, or appeal, of factual conditions), HEIDER's and FESTINGER's...
Thus the impact of an initial exercise of power facilitating or obstructing change along the lines suggested by vested interests is multiplied and stabilized.

III.

I have spoken so far of structural differentiation of functions as if it were a unitary phenomenon. In fact, of course, the concept covers a wide range of heterogeneous forms, which are likely to differ from each other in the consequences they bring about, in the circumstances under which they develop or in both respects. Concern with conceptual differentiation along these lines was much stronger around the turn of the century than it is now in spite of the fact that the presently prevailing concept of structural differentiation covers even more ground than the then current “division of labor”.

Formulations of balance theory and cognitive dissonance theory, and more specific, as well as more specifically sociological hypotheses about communication patterns, socially structured sequences of experience (of which sequences of socialization are one important subtype) or legitimacy beliefs affecting relative deprivation and relative satisfaction—these are a few examples of theoretical orientations relevant for identifying the conditions under which people’s values, interests and aspirations will or will not adapt to the actual conditions of their lives. On a more general plane, both DURKHEIM (1893) and SIMMEL (1890) have focused on changes in the moral order of society and in the moral orientation of individuals following—and, potentially at least, fitting—processes of structural differentiation. Conditions under which people maintain or develop values, interests and aspirations at variance with their actual life chances are, of course, equally important to identify. EISENSTADT (1964a) argues that all institutionalizations of a social order exclude or disadvantage certain groups and persistent interests, and he derives from here an important orientation for the analysis of inherent strains and immanent tendencies toward change.

9 See for instance BÜCHER (1893), BOUGLÉ (1903), and especially WEBER (1921: part I, chapter i, sections 15–24). Reviewing WEBER’s elaborate taxonomic efforts and comparing them with the rather sparse use this rich theoretical vocabulary is put to in the later analysis of Wirtschaft und Gesellschaft is a poignant reminder that conceptual differentiation should go hand in hand with the development of theory, a goal which in WEBER’s case may have been obstructed by his early death.

BÜCHER distinguished five different forms of the division of labor. It is neither necessary nor fruitful to go here into the details of his or of MAX WEBER’s taxonomy. One of their distinctions however, insisted upon already by MARX who argued its importance against ADAM SMITH, must be taken up here— the distinction between the “division of labor in manufacture” and the “division of labor in society,” to use MARX’ terms (1867: chapter xiv, section 4). While the former “implies the undisputed authority of the capitalist over men, that are but parts of a mechanism that belongs to him,” the latter involves in its extreme form “independent commodity producers, who acknowledge no other authority but that of competition, of the coercion exerted by the pressure of their mutual interests” (MARX 1867:356). MARX’ polemic argument for the distinction is effective indeed: “The same bourgeois mind which praises division of labor in the workshop, lifelong annexation of the laborer to a partial operation, and his complete subjection to capital, as being an organization of labor that increases its productiveness—that same bourgeois mind denounces with equal vigor every conscious attempt to socially control and regulate the process of production, as an inroad upon such sacred things as the rights of property, freedom and unrestricted play for the bent of the individual capitalist. It is very characteristic that the enthusiastic apologists of the factory system have nothing more damning to urge against a general organization of the labor of society, than that it would turn all society into one immense factory.” (MARX 1867:356).

Division of labor in society unfettered by any social controls is a special and extreme case. Both MARX and BÜCHER (1893) contrast the medieval separation of trades, where custom and law counteracted a division of labor within the workshop, with later capitalist production in which “anarchy in the social division of labor and despotism in that of the workshop are mutual conditions the one of the other” (MARX 1867:356) and MARX advances the general rule that the less division of labor is authoritatively regulated on the societal level the more it develops in the workshop and the more it will be subject to the authority of individuals (MARX 1847:130–131). The distinc-
tion between the two forms of division of labor thus puts into sharp relief certain differences in causation to which I shall return below. In particular, it establishes an important link to the distinction between spontaneous, crescent change and planned developments\(^\text{10}\).

Yet at least to MARX, differences in the effects of the two forms of division of labour provided a more fundamental rationale for this distinction. ADAM SMITH had focused on resultant increases in efficiency and therefore had not distinguished between the two forms, referring metaphorically to differentiated economies as "those great manufactures." There actually are good reasons to assume that division of labor within organizations differs even in its productivity effects significantly from division of labor between independent organizational units\(^\text{11}\). However, what led MARX to insist

\(^{10}\) "While within the workshop, the iron law of proportionality subjects definite numbers of workmen to definite functions, in the society outside the workshop, chance and caprice have full play in distributing the producers and their means of production among the various branches of industry. The different spheres of production, it is true, constantly tend to an equilibrium ... But this constant tendency to equilibrium, of the various spheres of production, is exercised, only in the shape of a reaction against the constant upsetting of this equilibrium. The a priori system on which the division of labor, within the workshop, is regularly carried out, becomes in the division of labor within the society, an a posteriori, nature-imposed necessity, controlling the lawless caprice of the producers, and perceptible in the barometrical fluctuations of the market-prices". (MARX 1867: 355f.) On the implications of this distinction between planned and unplanned change for current modernization theory see the suggestive remarks of TERENCE K. HOPKINS (1970: 27–29).

\(^{11}\) Already MAX WEBER (1921: part I, chapter ii, section 22) has spelled out a number of technical and economic conditions under which the "division of labor in manufacture" (in his terminology: the expropriation of workers from the possession of the means of production) is in several respects more efficient than a separation of production and trades which preserves the producers' independence. Among the technical conditions are economies of scale relative to tools and machines, sources of energy, and coordination by trained managers. The possibility of stricter work discipline, more room for rational selection and allocation of workers, and the advantages of rational capital and profit calculation give a competitive advantage under competitive market conditions.

on the distinction were the different effects on the class structure of society and on the class-determined experience of individuals: concentration vs. dispersion of control over the means of production, powerlessness vs. autonomy and other aspects of what he earlier had analyzed as alienation, and different interrelationships between the division of labor and the political organization of society.

The interrelationships between differentiation and various aspects of stratification are of course not overlooked in the study of stratification; but they do find less attention than they deserve in theoretical discussions of structural differentiation as well as in theoretical and empirical analyses of modernization. Where they have been included in the basic problem formulation of such inquiries, as for instance in the work of EISENSTADT on bureaucratic empires (1963), where he identifies as a fundamental dilemma of bureaucratic rulers the complexities of their relations to the aristocracy — antagonistic in terms of bureaucratic centralism, but concordant in terms of shared traditional bases of power — and to new urban strata — concordant in terms of bureaucratic innovation, but antagonistic in terms of the rulers' traditional bases of power — the results have been most impressive, moving the analysis from a comparison of different static models closer to an explanation of actual processes of change. Making these matters central is one of the appealing features of recent Marxist studies of development and underdevelopment such as the works of PAUL BARAN, ANDRE GUENDER FRANK or IMMANUEL WALLERSTEIN. A specific example is the idea that "linkage elites" develop in dependent countries out of the impact more advanced economies have on economically less advanced countries and that these elites stand in the way of autonomous and more pervasive development in these countries.

IV.

At the beginning of his elaborate taxonomy of forms of the division of labor, MAX WEBER speaks of "the endless variability of these phenomena". Structural differentiation of functions, I noted above, refers to an even
wider range of phenomena than the older concept of division of labor. Structural differentiation is not confined to economic production or even to primarily instrumental pursuits in general, and the structural units that deal with functional problems — singled out or bundled together in different degrees — have been thought of as roles, but also as organizations and even as such inclusive institutional complexes as “church” and “state”.

While this conceptual generalization has brought important theoretical advantages, I shall argue that it is useful and even necessary to complement it with conceptual specifications regarding what might be called the “level” of differentiation.

Simmel (1963:34; 1959:2) who is more careful in his formulations than many other recent writers limits differentiation to “changes in the role structure”. In his formal definition he refers to both roles and organizations. But fails to make use of the distinction in his analysis. The distinction can introduce crucial specifications, however. It is not only conceivable, but a common occurrence, that a differentiation of functions proceeds at the role level while no such development takes place at the organizational level — or even while changes at the organizational level result in an agglomeration of functions. A simple example for the second possibility is the development of the department store, where specialization of roles goes hand in hand with a decrease in organizational specialization. While I think that this example stands for a pattern of great significance, it seems that A. Salz (1934: 279) overstates the case when he generalizes: “... the functional differentiation or specialization of a whole and the functional differentiation of its parts are roughly in inverse ratio to each other.”

Once the distinction between different levels of structural differentiation or agglomeration of functions is made, there is no need to limit the application of the concept to only one or two levels. As long as crucial theoretical aspects of the process are the same or very similar, it seems fruitful to use the same concept in analyzing changes not only of roles, but also of organizations and organizational complexes, of norms and values; it may even be illuminating to speak of a differentiation of the cultural system or the personality system from the social system in analyzing long-term evolutionary change 12.

At the same time, this conceptual specification requires a restatement of propositions about conditions, consequences and correlates of structural differentiation of functions in general. Some of the puzzles of the relation between differentiation and efficiency would be brought closer to a solution if the hypotheses specified with the structural units are among which functions are reallocated. In modernization studies, the analysis of de-differentiation and differentiation processes and of their contrapuntal relationships would be clarified by such specification. To cite an example of special substantive importance, the unspecified generalization that modernization is associated with increasing differentiation flies in the face of evidence on the continuous agglomeration of functions in the institutional sphere of the state.

V.

Recent theoretical discussions of social differentiation have emphasized that any process of differentiation creates problems of integration. That increasing integration is a correlate of differentiation in the long run had been recognized already by Spencer. Earlier, Comte had seen integration as problematic, looking to government as the major source of integration in an increasingly differentiated society. Durkheim (1893) argued that “normal” forms of division of labor bring about their own specific forms of “organic” integration. He directed attention to certain problems of integration, however, when he pointed to the possibility of an “anomic division of labor” where the relations between the specialized functions remain unregulated. It is from these formulations that

12 See for example Bellah (1964). Even Simmel (1963) refers — in the very article in which he insistence on a narrow definition — to a differentiation of standards of social ranking and speaks of the secularization of beliefs legitimating rationality and the pursuit of economic advantage as a differentiation of values from religion.
the more recent treatments of integration problems took their leads.

Even at the risk of being cryptic I shall be very brief on the various aspects of integration. There are problems of coordinating and interrelating the more specialized units with each other — problems of establishing and regulating the exchange of goods and services as well as of sentiments and information. While the exchangeability of certain goods, services and sentiments has to be newly established, other patterns of exchange are excluded as incompatible with the new social structures. An example of the latter are relations of the type of "nepotism" which interfere with developing bureaucratic administration in the service of centralized rule. Since differentiation increases mutual dependence of units and often expands the scale of social aggregates made up of interdependent units, it raises the problem of extending effective social solidarities. This problem is closely related to the issues of insuring trust in interunit transactions, of establishing norms and values articulated with the new social patterns, and of arriving at adequate cognitive interpretations of the new situation. The latter problems point to the fact that integration always has also a cultural, and not only a social structural dimension.

These problems arise not only with respect to the relations between newly differentiated units. Differentiation also tends to disturb social relations and especially normative patterns in units not directly involved in the process. Thus, M. J. LEVY speaks of "modernization as a universal social solvent" (1966:741–776). In addition, there are similar intra-unit problems of integration, which look somewhat different in old structures, which "lost" some of their functions, and in new structures set up to deal with functions separated from the older complex. It has been asserted that the integration problems themselves tend to become specialized tasks for differentiated structures.

By and large, more theoretical questions have been raised regarding integration than answers given. However, there are a number of suggestive theoretical orientations. There are PARSONS' formulations about inclusion in the societal community and value generalization as complements to differentiation and upgrading of demands (PARSONS 1971). These four concepts are firmly grounded in PARSONS' general conceptual framework, and his theoretical arguments resolve fundamental ambiguities in DURKHEIM's discussion of changes in the conscience collective in the process of differentiation and of sources of solidarity in highly differentiated societies.

More specifically, SMELSER (1963) has argued that social disturbances arise out of a discrepancy between ongoing differentiation processes and insufficient integration. If this idea follows fairly closely DURKHEIMian leads about anomic as a major source of social disturbances, the related but significantly different conception of EISENSTADT (1966) sees protests and interest clashes as growing out of the mobilization of people and resources from earlier ascriptive fixations, a process that is closely related to certain types of structural differentiation, and views the capability of political and cultural centers to deal with these demands for change as the primary integrative problem.

VI.

Several recent reviews agree that our understanding of the causes of structural differentiation is particularly inadequate. Often the question of causation is not even a focus of attention\(^ {13} \). Much theoretical thinking on the

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13 This conclusion has even been reached for the causal analysis of social structures in general: "Curiously enough, the question of causal mechanisms in social structure has received relatively little explicit attention" (UDY 1968: 492) WILBERT E. MOORE (1968: 372) discusses more specifically the theoretical analysis of the "presumably universal tendency toward specialization or structural differentiation" and observes: "... the question of why this should be so is commonly left unanswered, the process being taken as given". Regarding small group studies, KARLSSON (1958: 129f.) notes the "scarcity of experimental and direct observational evidence on factors influencing the division of labor". He speculates that "there are many complex factors involved: the situation, the task, the members' knowledge of effective production
conditions under which structural differentiation takes place — in classic economics and sociology as well as in contemporary modernization studies — has been derived from ideas about the assumed productivity advantages of differentiation. If the problem of what constitutes productivity is left aside for the moment, several issues can be tackled by raising a seemingly naive question, namely why — assuming that differentiation aids efficiency at all — there should be any limits to a continuous and rapid progress of structural differentiation. An incomplete listing includes the following factors:

1. A first factor is ignorance about the consequences of specialization. This is a factor of considerable importance as ignorance is virtually universal if the standards for "knowledge" go beyond a few concrete observations, foresight about the most immediate future, and ideas at the broadest level of generality. Even such ideas are of relatively recent origin: "Division of labor in itself is an ancient and natural phenomenon; what is novel is the discovery that it can be an instrument of economic rationalism." (SALZ 1934:280)

In the vein of classic evolutionary theory, consideration of ignorance leads to hypotheses about trial and error variation and differential chances of different patterns for success and survival\(^\text{14}\). Complementary methods, the distribution of leadership qualities among group members, etc.\(^\text{.\text{ }}\) In the study of complex organizations, we have witnessed in recent years an upsurge of systematic theory formulation and the systematic testing of hypotheses, although the substantive advances are still somewhat meager; see for example BLAU (1970) and BLAU and SCHOENHERR (1971).

14 MOORE (1968: 372) argues for the adoption of the idea of selective adaption in sociology: "In Darwinian evolutionary theory, structural differentiation derives from selective adaptation of organisms to their environment. Since environments differ both cross-sectionally and temporally, the idea of selective adaptation provides a way of accounting both for the observed diversity in structural forms and for continuing change. It is surprising that so little use has been made of this conceptual scheme in the theory of social systems, where it appears equally applicable". This observation is indisputably correct if limited to recent social theory; otherwise, it neglects the work of BÜCHER and especially MAX WEBER, who never loses sight of "natural selection" as a force shaping the prevalent institutional patterns in different environments.

hypotheses about diffusion and rational planning acquire some importance if the advantages of a given advance in the division of labor become intelligible. An interesting variant of such hypotheses, which is important at least for the short run, is that adoption of others' practices and rational planning may be based on partially or wholly erroneous, yet widely believed assumptions about the effects of a structural innovation; if the organizations in question are not under intense competitive pressures from more effectively structured competitors, the adopted features may be retained for a long time even if "in reality" they reduce the effectiveness of operations.

2. A second factor limiting rapid developments toward higher levels of specialization, related to imperfect knowledge, are the risks of trying something new and uncertain, especially if the present level of productivity is such that few resources can be spared as "venture capital."

3. Of similar effect, but of far greater general theoretical importance, is a third factor — the institutionalization of given structures. Institutionalization of normative patterns and vested interests stabilizes the status quo; it even tends to remove both goals and means from rational review, although there are important variations in the extent of such "institutionalization" between and within societies. Differences in the degree of institutionalization of given structures and in its traditionalizing effects make it likely that advances in differentiation arise in special social locations and spread from there by competitive elimination rather than by imitative transformation of other structures\(^\text{15}\).

4. If, as was discussed above, differentiation has some consequences which affect efficiency adversely and if the balance of its consequences for efficiency depends on environmental and other conditions, it is unlikely in the extreme that differentiation can go on endlessly in any

15 The difficulties of structural change and the disturbances pursuant to actual change, which are due to the institutionalization of given normative patterns and vested interests, make it often a rational strategy of planned change to set up a new pattern de novo rather than seek to transform an old structure.
form without decreasing efficiency beyond a certain point\textsuperscript{16}.

(5) One condition for the effective functioning of more differentiated structures is a minimal solution of integration problems. Recent analyses have shown that it would be a mistake to take such solutions for granted.

(6) Another condition for increases in the division of labor has found theoretical attention on from the earliest stages of the discussion. Advances in specialization require a sufficient flow of demand for the specialized activities. ADAM SMITH saw here an important link between extensions of market exchange and increases in the division of labor. BÜCHER criticized SMITH's proposition that all division of labor derives from man's propensity "to truck, barter and exchange one thing for another" (1776: vol. I,15), arguing that "the first acts of trade do not appear simultaneously with the division of labor, but long precede it" as well as that certain forms of division of labor had the evident purpose of limiting exchange as much as possible. He did concede, however, "that with divided labor exchange becomes necessary from the moment that the producer possesses all the means of production. It then becomes a vital element in each economy; and from this point on almost every advance in division of labor increases the number of necessary acts of exchange" (BÜCHER 1893: 296). The more general proposition that a sufficient flow of demand is a requisite for any sustained increase in the division of labor is not all affected by this controversy. It holds for BÜCHER's forms of division designed to minimize exchange as well as for a pattern that is even earlier on an evolutionary scale—the accumulation of resources in one household, usually a household at a political or religious center, which makes craft specialization within the household possible. The size and the density of populations aggregated in political terms are related to such accumulation of resources through tributes. The size and the density of populations aggregated in terms of economic exchange are related to the demand for specialized activities concentrated through market exchange. In both respects, more effective technological means of and social arrangements for transportation and communication heighten the effects of population aggregation. That what counts here is the extent of interaction rather than the mere physical concentration of populations in space was the rationale of DURKHEIM's concept of "dynamic" or "moral" density (1893: 257 and 1895:115). However, the insight itself dates back much earlier; it was clearly formulated by MARX\textsuperscript{17}, and DURKHEIM himself cited AUGUSTE COMTE.

These six considerations are not meant to present an exhaustive answer to the question posed. They are, however, sufficient to explain why one should not expect a rapid and continuous increase in differentiation due to the efficiency effects of specialization. They furthermore suggest hypotheses about the conditions under which one would expect differentiation to take place. These need not be spelled out in detail. Generally, selective adaptation due to competitive pressures seems to be a more powerful mechanism than rational adoption of new patterns because of productivity advantages understood by those involved.

VII.

EMILE DURKHEIM has challenged the line of reasoning that derives the division of labor

\textsuperscript{16} PITIRIM SOROKIN offered this simple piece of theoretical wisdom to this colleagues forty years ago, arguing the point for all propositions of the "the more x, the more y" type and especially for evolutionary hypotheses of this kind. He speaks polemically of the "attractive 'weeds' so abundantly yielded by the theories of limitless extension of causal relations and the half-poisonous exhilarating 'hashish' of the theories of Evolution and Progress with their unbounded trends". (1933: 19)

\textsuperscript{17} "... the number and density of the population . . . (are) a necessary condition for the division of labor in society. (Here a note refers to JAMES MILL and TH. HODGSKIN.) Nevertheless, this density is more or less relative. A relatively thinly populated country, with well-developed means of communication has a denser population than a more numerous populated country, with badly developed means of communication; and in this sense the Northern States of the American Union, for instance, are more thickly populated than India." (MARX 1867: 352f.)
from productivity advantages in a much more radical way. He argues that this explanation presupposes a capacity for indefinite increases in happiness, which he considers an implausible assumption. His own explanation of "the fact that (the division of labor) advances regularly in history" (1893:233) starts with the observation that volume and density of populations correlate with the extent of the division of labor. However, he views increases in dynamic density not only as necessary, but also as sufficient conditions for increases in the division of labor. The chief mechanism that accounts for this effect is the increase in competition which goes with increases in dynamic density. Those who win out in that competition "can take care of the vaster task devolving upon (them) only by a greater division of labor, and... the vanquished can maintain themselves only by concentrating their efforts upon a part of the total function they fulfilled up to then." "The division of labor is, then, a result of the struggle for existence but it is a mellowed dénouement." (1893:269, 270)

DURKHEIM's analysis of the causes of the division of labor derived its influence in the discipline more from the meta-theoretical positions it exemplified and applied (see for instance PARSONS 1937) than from its originality and persuasiveness as a theoretical explanation of the specific phenomenon. While the issue of a basic constancy in contrast to unlimited increases in happiness may be of great meta-theoretical importance, it is something like a "red herring" in the discussion of the division of labor. In focusing on efficiency effects of differentiation, proponents of the attacked theory may — instead of presupposing an ever expanding capacity for happiness — simply assume that human needs tend to expand beyond mere survival needs — with or without increases in "happiness" — and that, for this and for other reasons, the potential demand for a variety of goods, services and non-marketed activities exceeds the supply at any given time. Under such conditions, this argument continues, more differentiated operations would have a competitive advantage if, when and where they are more efficient. In fact, DURKHEIM makes similar assumptions. He builds an awkward argument about how the strains of competition increase the demand for creature comforts in order to account for the absorption of increased productive capacity, and he assumes without qualification that the division of labor increases efficiency. On the other hand, he does not provide convincing arguments which would show that competitive pressures are a necessary condition for the development of further differentiation, excluding other impulses, or that they are a sufficient condition with no other reaction to increased competition possible; DURKHEIM himself allowed for several alternative reactions — emigration, resignation to a more precarious existence, and the elimination of weaker elements through suicide or otherwise, and LEO SCHNONE (1958) has recently argued that DURKHEIM overlooked a number of other demographic, technological and social organizational changes that also would "mellow" the "struggle for existence".

18 "If (our ancestors) were so greatly tormented by the desire to increase the productive power of work, it was not to achieve goods without value to them. To appreciate these goods, they would have had to contract tests and habits they did not have, which is to say, to change their nature. That is indeed what they have done, as the history of the transformations through which humanity has passed shows. For the need of greater happiness to account for the development of the division of labor, it would then be necessary for it also to be the cause of the changes progressively wrought in human nature, and for men to have changed in order to become happier. But, even supposing that these transformations have had such a result, it is impossible that they were produced for that, and, consequently, they depend upon another cause!" (DURKHEIM 1893: 240f.)

VIII.

Earlier, at the beginning of section VI, I suspended the issue of the indeterminacy of a general cost-benefit calculus — the question of what constitutes productivity. The matter must be taken up again since productivity may — especially through the mechanism of adaptive selection — constitute one of the more important causal factors in the development of differentiation. DURKHEIM's argument against hedonism touches on the issue; however, he only sees preferences for ends and valuations of means as varying from society to society and, especially, between different
historical epochs. He does not consider the question of variation between social categories, groups and individuals within a society.\(^{19}\)

The indeterminacy of a general cost-benefit calculus, as was discussed above, puts into doubt the generalized assertion that differentiation aids productivity since the meaning of productivity shifts with different patterns of preference and valuation. I have argued earlier that one can limit, if not overcome, this indeterminacy by focusing on the distribution of power and the preference structure of the most powerful groups and social categories. It is these preference structures one would have to take into account primarily in explaining social change.

In this context, the distinction between intra-organizational and interorganizational differentiation becomes important since organizations present a more unified picture in terms of the effective valuations and preferences which determine what is considered advantageous. Organizational structures are furthermore shaped by rational planning to a larger extent than societies—though by no means completely so. Such rationality—a term that has to be taken here in a narrow and formal meaning—will be the more pronounced, the more clearly a differentiation between direction and implementation has developed, not only because such differentiation concentrates attention and energy on planning, but also because it protects the decision makers against the impact of much of the consequences of their decisions. While the limitations on the ways in which productivity advantages can indirectly cause differentiation, limitations discussed earlier in section VI, apply to intra-organizational change too, they do so in a modified way only and they limit such "feedback" effects less drastically than in the case of inter-organizational change.

Inter-organizational differentiation poses more thorny conceptual and theoretical problems because the indeterminacy of cost-benefit calculi is not as easily by-passed by referring to effective centralized decision making. The problem is alleviated somewhat for certain patterns of recent social change, since with advancing world modernization it appears that planning on the societal level, MARX’s "general organization of the labor of society", is advancing too, although one can easily overestimate the effective influence of such planning. In any event, this is a very recent trend in the context of world history, and if there does exist an overall constancy of direction in "general evolution" leading to greater division of labor on the role level as well as to higher levels of organizational and other more complex forms of structural differentiation in society, it has to be explained in terms of "crescent" rather than planned change and in terms of variable cost-benefit calculi.

It is apparent that any analysis seeking such an explanation on the societal level would be an extremely complex undertaking because of the number of interacting factors and the varieties of interdependence between them under different conditions that run the gamut of human history. One leading consideration may be suggested, however. Beyond a minimal level of complexity, all known societies are characterized by strong inequalities in the distribution of power and economic advantage. It is significant that most evolutionary theories agree that at the beginning of all structural differentiation beyond specialization along age and sex lines stands a simultaneous differentiation in terms of economic advantage, power and "responsibility" for dealing with certain collective problems.\(^{20}\) Such power concentra-

\(^{19}\) See the quote in the previous note. In a very narrow sense and indirectly, DURKHEIM does consider such divergences within societies, but only in the "abnormal" state of an "anomic division of labor"

\(^{20}\) PARSONS’ formulation may stand here for many others. Social stratification constitutes together with cultural legitimation the first pair of what he calls "evolutionary universals", organizational developments that open up further possibilities for societal evolution. Discussing the emergence of stratification, he says: "The main point is that the differentiation of groups relative to an advantage-disadvantage axis tends to converge with the functional need for centralization of responsibility. Since responsibility and prestige seem to be inherently related in a system of institutionalized expectations, the advantaged group tends to assume, or have ascribed to it, the centralized responsibilities. It should be clear that the problem does not concern the balance between services to others and
tion not only allows early occupational specialization within the household of political rulers and/or religious leaders, it also gives more clear-cut focus to what DURKHEIM has called the conscience collective. Both directly and through its impact on the value orientations of other groups concentration of power, then, will limit the divergences between preferences and valuations effective in determining what in the aggregate is advantageous. This would be true even in societies of great complexity where the conscience collective is more recessed and less unitary—a tendency that has recently been expressed in PARSONS’ concept of value generalization.

While the foregoing can begin to account within a given society for important limits to the variability of what is effectively considered advantageous and thus for some constancy in the effects of selective adaptation if environmental conditions remain relatively stable, it does not yet solve DURKHEIM’s problem: How does one explain the evolutionary trend toward greater complexity in terms of efficiency considerations, if human beings in the course of fundamental socio-cultural change “contract tastes and habits they did not have, which is to say, ... change their nature”? (DURKHEIM 1893:240) This problem is, for the theoretical orientation proposed, aggravated by the fact that the patterns of power—the value and availability of different power resources, the formal power structure as well as the chances of different groups and social categories to attain power—are fundamentally affected both by radical changes in the “tastes and habits of people” and by changes in the complexity of structural differentiation.

I am inclined to answer the question with four arguments. First, in many instances of historical change, including many revolutions and even cases of very long term change, closer analysis will detect continuities within change, continuities which pertain to patterns of power as well as the interests and effective value preferences of both common people and elites. Such continuities may be partial only; they would be pertinent to the issue nevertheless. Second, even in cases of more fundamental differences there remain important formal similarities in the interests especially of the elites resulting in similar implications for suitable structural arrangements. Generalizing the notion of a raison d’État might indicate what I have in mind. To put it abstractly, there may be important areas of overlap in the cost-benefit calculi of the privileged strata in otherwise quite diverse societies. Similar interests in maintaining their advantage aside, it is important to remember that they typically do not have to suffer—and thus count as “costs”—many of the consequences of their preferences and actions. Third, the organizational forms most efficient to serve one set of interests may also be suitable for a substantively quite different set of interests. Finally, fourth, it would be an error to conceive of the trend toward greater complexity discerned by many analysts in the “general evolution” of world history as a continuous elaboration of complexity in the same areas of concern, along the same lines of differentiation, and without reversals. It appears to the contrary that history is full of reversals of the trend, new starts which move into different areas of concern and display different directions and forms of differentiation, and alternative “routes” to similar levels of overall complexity. The first argument suggests the question whether DURKHEIM’s problem obtains with its full force in a given comparison, the second and third indicate a partial solution to the problem, the fourth concludes that more than a partial solution is not needed.

IX.

“What causes have brought about the progress of the division of labor? To be sure, this cannot be a question of finding a unique formula which takes into account all the possible modalities of the division of labor. Such a formula does not exist. Each particular circumstance depends upon particular causes that can only be determined by special examination. If one takes away the various forms the division of labor assumes according to conditions of time and place, there remains the fact that it advances regularly in history.
This fact certainly depends upon equally constant causes which we are going to seek.” This is the way DURKHEIM (1893:233) formulated the question he sought to answer in his analysis of the causes and conditions of the division of labor. Together with most 19th century authors dealing with the subject, he not only excluded the explanation of concrete historical developments, but also disregarded the development of specific hypotheses about the incidence of different types of division of labor under different conditions, about the timing of differentiation as process, about reversals, alternative routes and conditions of convergent and divergent developments. The explanation of concrete historical developments is a task that can never be completely mastered and that presupposes valid general propositions about the causation of all aspects of the development in question. Rejecting this task gives DURKHEIM’s formulation persuasive force. However, discarding the development of specific hypotheses concerning a large variety of special problems is a different matter altogether. It confines the inquiry to the explanation of “general evolution,” a worthy problem indeed, but also a problem the discussion of which must remain confined to more or less plausible speculations unless it is built upon tested hypotheses concerning a variety of special problems. This could be otherwise only if the different patterns of differentiation, which in the aggregate constitute the overall trend, were completely homogeneous as to their causal conditions, if variations in environmental conditions and different arrangements of social organization other than differentiation made no difference for future developments, or if there were no reversals and long term stagnations in the development of differentiation.

I suggest that the time has come to shift focus from the aggregate problem of a general trend toward complexity to a theoretical and empirical analysis of more specific problems. This need not be a shift toward minute analytical problems which barely go beyond simple description. A study with as vast a scope and as complex a theoretical problem as EISENSTADT’s analysis of the rise and the decline or further development of pre-modern bureaucratic regimes (1963) provides as apt an example for the problem formulations advocated as the recent investigations of certain aspects of the structure of formal organizations.

In particular, studies of actual processes of differentiation are likely to further our understanding of the phenomenon as a whole. A fruitful entry into causal analysis of differentiation as process may be opened by inquiring into conditions under which de-differentiation or agglomeration of functions occurs, into the consequences of such developments, and into possible feed-back mechanism linking consequences to causal conditions. Similarly, intensiv theoretical and empirical study of obstacles to differentiation processes — especially under conditions where on theoretical grounds one would expect differentiation to take place — would complement the inherited tendency of primarily focusing on conducive factors21. It may be suggested that in both respects, in regard to agglomeration of functions and in regard to resistance against differentiation, power interests and power resources of the units involved will be of utmost importance22.

X.

This essay did not seek to give a complete survey of past and present work on structural differentiation. It rather focused on a few issues considered critical. What is clear nevertheless is that the problem situation as it presents itself today is far more complex than BOUGLÉ (1903) saw it seventy years ago when he undertook to integrate the results of 19th century theory and research in a DURKHEIMian framework. Perhaps the best way of concluding the argument is to bring together the major suggestions for theoretical orientation made.

21 A pertinent example of such reasoning “against the grain” predominant arguments is found in GOLDER’s discussion of reciprocity and autonomy when he speaks, to cite but one general idea, of the “drive of a sub part (of an interdependent system) to maintain or extend its functional autonomy”. (1959: 258)

22 The interrelations between power and differentiation, in particular differentiation as process, are the subject of a study in progress closely related to this essay.
in the course of discussing forms, consequences, and causes of structural differentiation of functions.

1) Structural differentiation of functions is related to productivity and, more generally, efficiency. However, while it is possible to formulate important hypotheses explaining a positive relationship, there are others indicating adverse effects of differentiation on efficiency. The balance of these effects will be contingent on past levels of differentiation, the character of the development in question, and their relations to the environment of the system under study.

2) Conceptually more important is the further problem raised by the indeterminacy of abstract cost-benefit models. Since people’s preferences and valuations vary efficiency does not have a stable meaning across different groups, subcultures and societies. This problem cannot be resolved by propositions about spontaneous value consensus.

3) Structural differentiation of functions goes beyond the scope of the older concept of division of labor, encompassing other functions than economic ones and more complex structural elements than roles. While this conceptual generalization has yielded important theoretical gains, certain theoretical distinctions are imperative. Thus, intra-organizational and inter-organizational differentiation have distinct causal conditions as well as different consequences, and differentiation at one level of social structure can go together with agglomeration of functions at another.

4) Among the consequences of differentiation, class forming effects deserve more attention than they have received either in the early economic theory of the division of labor or in recent differentiation theory.

5) Causal analysis of differentiation has typically assumed, but not sufficiently analyzed, feedback effects of efficiency consequences of differentiation. Generally, rational anticipation provides a weaker explanation than the model of “selective adaptation” which is based on competitive elimination. Rational anticipation is more important in intra-organizational than in inter-organizational differentiation.

6) Integration problems of great complexity constitute — especially in the long run — an important limitation on either mechanism.

7) Any explanatory model based on feed-back effects of efficiency consequences of differentiation has to come to terms with the indeterminacy of an abstract cost-benefit calculus. Consideration of the distribution of power, including its effects on the preferences and valuations in the society as a whole, permits some specification of which substantive efficiencies will have the most decisive impact on social processes.

8) While such specification is most powerful in the analysis of intra-organizational developments, it is also applicable in the analysis of change at the societal level.

9) Since patterns of power — as well as patterns of value orientations — are manifestly not constant givens, but are in the long run contingent — among other things — on the overall level of differentiation, general evolutionary trends transcending specific societal and cultural systems present singularly difficult analytical problems. Tentatively, a solution is suggested through focusing on certain constancies especially in the interest structures of elites in more complex societies. A more complete theoretical solution requires a better understanding of the determinants of change in preferences and valuations.

10) Focusing on specific problems of differentiation as process is advocated as a more promising strategy of tackling these problems than a direct search for an explanation of the general evolutionary trend toward greater complexity.

Bibliography


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