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Towards a macro-social approach to the theory of the formation of wage and salary structure

Working paper


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Note: this paper was written during 1974 and early 1975, while I was a research fellow at the LEST, with lots of advice and feedback from Rodney Crossley, François Sellier, Jean-Jacques Silvestre and Marc Maurice. I saw the paper as a possible contribution to their comparative work on France and Germany which was at its most intensive phase while I was at the LEST: hence the search for societal factors that shape pay structures. I circulated the paper as part of my job search, and although the academic labour market was reeling from the first oil shock, I was surprised at the generosity of older and wiser scholars with their time and comments despite the dearth of entry jobs. These I still treasure.

Among these, I received brief but perceptive comments from John Hicks, who asked how the model would work with the introduction of competition, and who made some very kind and helpful suggestions for my job search. Barbara Wootton also expressed interest but was also critical of its style and generality. Willy Brown sent me a long and very generous set of comments, which we eventually discussed at our first meeting in Warwick in spring 1975. Guy Routh kindly put me in touch with Henry Phelps-Brown who advised against trying to publish it on the ground that it was too speculative, and that if I were to research the subject properly, I should need to devote much more effort to a detailed empirical analysis. He also advised that big problems should be divided up into much smaller ones to make them workable: one cannot work on a whole oak tree, but should cut it up first into planks.

The opportunity to do this came with my job at Sussex from September 1976 on a project with Christopher Saunders on pay inequalities and inflation in western Europe. That gave the opportunity to look at some aspects of the problems outlined in the paper, but it also took me towards the way in which labour market and firm structures shape pay structures. In this, I was also greatly influenced by the France-Germany project of Maurice, Sellier and Silvestre, and their work on the ‘effet sociétal’. By then too, my confidence in the first of the structuring principles, the authority hierarchy, had been eroded. During my year as a researcher on industrial democracy in 1975-76 at the then Department of Employment, Peter Brannen and John McQueeney showed me that authority could rest on compliance as much as on a belief in its legitimacy. My work at Sussex on pay structures showed them to be more varied than I had originally thought. Finally, my attempts to probe the empirical side of studies of worker orientations that might have provided support for the potency of beliefs about authority, notably by Goldthorpe et al and Blackburn and Mann, showed them to be real but much less all-embracing than I had first imagined. I have not given up on the social determinants of pay structures, but Phelps-Brown was probably right to advise me to try an alternative path.

The current version is the fifth, of January 1975. A version of the paper’s fourth draft also exists in a French version: ‘Esquisse d’une théorie de la hiérarchisation des salaires’, Note de recherche, Laboratoire d’Économie et de Sociologie du Travail, CNRS, Aix-en-Provence, 8 Nov. 1974, NG/74/456, 28 pages, mimeo. The argument was taken a little further in my ‘Critique de l’analyse économique des faits sociaux: le cas de la recherche sur le marché du travail’, which was published as a research report of the LEST in 1976, chapter 10 (Action Thématique Programmée Internationale du Centre National de la Recherche Scientifique, no. 1655 1599). There, I tried to develop further the argument about the nesting of the different structuring principles, and the need to maintain ‘structural integrity’ at each successive stage of ranking pay levels.

The paper’s title itself mirrors that used by Mike Piore who spent the summer of 1974 at the LEST.

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Towards a Macro-Social Approach to the Theory of the Formation of Wage and Salary Structure.

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TOWARDS A MACRO-SOCIAL APPROACH TO THE THEORY OF THE FORMATION OF WAGE AND SALARY STRUCTURE.

I.

In attempting to develop a macro-social approach to the analysis of the formation of wage and salary structure the author hopes that the hair will not be made to bristle on too many heads, and that he will not cause too many hands to be thrown up in horror. Nothing so terrible as the return of Banquo's ghost, and nothing so ambitious as an integration of the works of Herbert Marcuse and of Paul Samuelson is in store! The aim of this essay is much more mundane; an attempt at an analysis of the structuring of wages and salaries for the whole of the working population, not restricting ourselves as often is the case to the wages of manual workers. Indeed, if our hypothesis proves to be sound, the formation of "wage" structure cannot be understood without reference to the social hierarchy of earned incomes. To make the understanding of this essay easier, the reader is warned that the normal methodology of the economist is reversed, and that we shall be setting out from the macro-social level rather that the more usual individualistic one.

In the opening chapter to her book, "The Social Foundations of Wage Policy" (1955 and 62) Barbara Wootton criticises economists for giving the equalising forces in wage determination logical priority over all others, a situation she compares to that of the geographer, who in trying to explain the course of rivers, feels obliged to begin by explaining why all land is not perpetually flooded. Theoretical economists have gone a long way towards explaining some of the forces which produce differences in wage levels, Becker and other human capital theorists going in one direction, and a smaller number of other economists like Hicks in another. Much of the subsequent work of Wooton, however, remains just as topical as it did in the late fifties, that is, the social foundations of wage and salary structure, and it is on the problems of relating these to the factors more
familiar to economists, like training and net advantages, that we shall focus for most of the rest of this essay. In what is to follow we shall look more closely at Wooton's argument, and Hicks' reply to it. In doing this we discover how far existing economic theory can go in explaining the "social foundations", and what are its limitations. In choosing this strategy we might be criticised for giving the economist the "benefit of the doubt" - we leave two parts of Wooton's criticism of the economist's theory of wages to the economist - but this is due to lack of space, and the need to concentrate on what was most central to our argument. We focus therefore on the functioning of authority. Our next problem is how to understand how this can be related to other factors, and for this purpose we develop what we call a "multidimensional social measure" which would, we argue, have a concrete social existence, and should not be simply seen as a heuristic device. After outlining this in an abstract form, we pass to an examination of the function it would fill in an economy, and argue that the observed increasing functional differentiation of societies as they develop historically does not entail a disappearance of organisations and control, and that it is their continued existence in highly differentiated societies which makes the form of comparison implied in such a social measure necessary. After this we pass to an examination of the content of the "structuring principles" that go to make up the measure, and their order of application. The next stage is to observe a number of anomalies that are resolved by our approach before finally passing to an analysis of some of the theoretical perspectives opened up, and an outline of some of its policy implications.
II.
THE DEBATE BETWEEN HICKS AND WOOTON AND THE "SOCIAL FOUNDATION" THAT WAS LEFT OVER.

The greater part of this debate took place in three works; a book, that of Barbara Wooton; an article, by Hicks, entitled "The Economic Foundations of Wage Policy" (Economic Journal 1955); and a review article, which appeared in the same issue, by Guillebaud. It will be useful to begin with a résumé of the central points of the main contenders' arguments. There are three main lines to Wooton's critique of the "economist's theory of wages"; the first being that social structure plays an important part in the determination of the hierarchy of incomes from employment; the second, that modern methods of wage determination through collective bargaining, wage councils, and arbitration favour greatly the influence of extra-economic considerations, like arguments based on "justice" or "custom", generally, what she called the "modern tendency to deal in ethical currency"; and thirdly, and lastly, that the great number of occupational and local "anomalies" require special explanation, external to, and above that offered by economic theory.

The first two points differ from the third which bears mainly on the lack of empirical generality of economic theory in this domain. They depend much more on the type of explanation to be given for the origins of social structure and the forces that maintain it, for the nature of "custom" and the content of the normative arguments used, that is, they depend on the "metal" of which our "ethical currency" is made. The strength of our argument through the sections which follow will depend very much on our success in establishing an account of these phenomena which gives them a certain autonomy with respect to economic forces. Before seeing how Wooton deals with this question lets us first turn to Hicks' contribution to the debate.
Hicks' argument too deserves close attention, partly because what he writes is the fruit of careful reflection, and partly because, while remaining consistent with a very broad current of thought to which he as much as anyone has contributed, he has perhaps gone further towards recognizing the social forces Wooton describes, and in giving them a treatment that does some justice to them. His thesis can be summed up in a sentence from his article, that "economic forces do affect wages, but only when they are strong enough to overcome these social forces!". In Clay's book, "The Problem of Industrial Relations" (1928), and as Hicks points out in a more recent work, "The Crisis in Keynesian Economics" (1974), in certain passages of Keynes' General Theory certain elements of such thinking can also be found. In the extension of collective bargaining, he did not see the same qualitative change that Wooton did, rather he saw in this, and the increase of public regulation, a strengthening of the social forces at work, the qualitative change coming in the yielding of the gold standard before what he baptised as the "labour standard".

He does not attack the first component of Wooton's argument, that social structure plays an important role, and this perhaps facilitates the kind of account he develops for wage structure in terms of once economically justified differentials which have become fossilised, or enshrouded in custom, or which become custom bound in order to defend a past investment in a particular skill. A priori, there seems to be no reason why arguments of justice or fairness cannot rest on such considerations. Hicks' own views are expressed most succinctly in the appendix to his article where an explanation of wage structure is given in terms of the different elasticity of supply of certain forms of skilled labour with the short, not so short, and long run (the period being defined in terms of training possibility), which creates the initial divergences from the long-run equilibrium level, these
divergences then being maintained, for example, by union pressure beyond the time of their immediate economic justification.

In order to explore the nature of the debate more fully, and to appreciate the proximity of Hicks' position to that of his fellow economists, it will be useful to recall A.M. Cartter's presentation of the marginal productivity theory of wages, (The Theory of Wages and Employment, 1959). He decomposes the theory into three elements; the "principle of marginal productivity"; the existence of perfect competition on the labour market; and the existence of long-term equilibrium on the other markets. It is the first of these three that is of most interest to us, the principle of marginal productivity, which is that the rational entrepreneur seeking maximum profits will be guided by the marginal productivity of a factor in determining the relationship between the employment of that factor and its rate of remuneration, which implies, in other words, a direct functional relationship between the wage and the level of employment, and that the employer will seek to adjust one or other of these variables so that the factor's marginal product will be equal to the wage. Clearly, the applicability of this depends upon the degree of control that the entrepreneur can exercise over the price (the wage), or the quantity (employment).

Hicks presents a similar distinction in his "Theory of Wages" (1932 and 1963), and here too, what he calls the "law of marginal productivity" is valid primarily in the long-run. These considerations lead him to express doubts about the usefulness of the concept of the "short-term marginal product". It is this stress on the long term nature of the working of the marginal productivity principle which enables us to see the relationship that neo-classical theory establishes between social forces and economic forces. It is essentially one of the relationship of short period to long period; There can be no general equilibrium
without the wage equalling the marginal product of different labour services, but in situations in which the other two conditions that Carter cites do not hold, no adherent of the marginal productivity theory of wages would be surprised at many of the "anomalies" that Wooton highlights. For them, these anomalies may be important, but their significance is still that of short-term deviations from the deeper current of long-term equilibrium. In J.B. Clark's words, the ocean has its general level, although there are, and always will be waves on its surface. It is perhaps this vision that has led many economists to conclude that collective bargaining can only be advantageous in the short term, any sizable gain provoking a future change in the demand for the types of labour services concerned.

Wooton's vision may appear less rigorous, but because she was more concerned with the richness of the variety of forces affecting wage structure, she was less inclined to ascribe to either group of forces any overriding significance. To be fair it should be added that she was not working in the marginalist framework of short and long run, and that her interest was much more in the temporally long-run existence of this variety. What is of especial interest to us in her argument stems from the nature of the importance she ascribes to social structure, that is, that this structure is not to be explained in terms of prestige, or of differentials inherited from the past and upheld in the face of changed economic conditions. The clue is given in the principle of remuneration that a man who exercises authority should be paid more than those who are subject to his authority, that is that the social hierarchy is one based on command, and that prestige or wealth are expected to follow this, or to make this effective. Her argument is not that social structure is independent of wage and salary structure, as the latter fulfills an important function in maintaining the former, but that the structure is primarily
political, concerned with the distribution of certain types of authority, rather than economic flowing from the distribution of rewards for the provision of different labour services. At a level beneath that of society as a whole, it is interesting to observe that in a number of attempts at worker managed firms, the problem of choice of the form of wage structure has occurred very early in the proceedings. In a recent case, reported in the Financial Times, the worker managed building firm "Sunderlandia", after a number of experiments, adopted the solution of a single wage for all categories.

If Wooton's observations are sound, they produce a difficult set of methodological problems for the analysis of wage and salary structure, that is how one sets about explaining this and other social phenomena which appear to be overdetermined. Hicks' attempt to do so, we observed, involved the ranking of the different factors by period analysis, and this seemed reasonably successful while the economic long-run remained untainted. If we interpret Marshall's famous footnote on the economic period, as seems correct, not in terms of chronological time, but in terms of the working out of different processes, then the free working of the economic long-run implies the independence of this from any other social process of equivalent "duration". The difficult problem is what happens when a social process works even through Marshall's "theoretically perfect long period" which gives "time enough to enable not only the factors of production of the commodity to adjust to demand, but also for the factors of production of those factors of production to be adjusted and so on."

What we shall be arguing in this essay is that the "principle of authority" which is bound up with the political aspects of social structure is one such process. We have argued that the approach that Hicks makes use of does not help us here, which was probably why he did not reply to this part of Wooton's critique, and our next
task is to propose a way in which the articulation of such "economic" and "social" processes might be tackled. To make our Reader's task less arduous we propose to start with an abstract presentation of our hypothesis, and then seek to explain its functioning, and develop some of its implications.

III.
THE DEVELOPMENT OF THE CONCEPT OF A MULTI-DIMENSIONAL SOCIAL MEASURE OF LABOUR.

Before embarking upon his discussion of value in the "Wealth of Nations", Adam Smith expressed some ideas on the profoundly social nature of exchange, ideas which can be found reflected in some modern theories of language. He brought the capacity to exchange and to cooperate down to the capacity to live socially, and he contrasted this situation with that of the incapacity of animals to engage in such activities. Whoever, he asks, has seen two dogs bargaining over a bone, or working together, except by chance, in the pursuit of a hare. He then goes on to ask what are "the rules which men naturally observe in exchanging", which seems to imply a vision of value as a social institution, resulting doubtless from the "bringing into common stock" of all the different skills and talents the various members of a given society possess. Indeed, it is the way these different capacities are brought into common stock, and the way information about these can be communicated that is much of our concern here. In a very thoughtful article ("Qualités de Travail et Hiérarchie des Qualifications" Sociologie du Travail I973) Pierre Rolle suggests that if labour qualification were simply a bundle of heterogenous qualities, it could not serve to convey market information.

Footnote: In effect, this could lead to an interesting critique of some attempts by neo-classical theorists to overcome the problems posed by heterogenous labour inputs by introducing a theoretically unlimited number of subscripted variables.
The degree of qualification is, of course, but one possible
dimension along which different kinds of labour may be compared, indeed, logically, the number of possible dimensions is
infinite, and this is not just true of ways of categorising labour
qualities, but of any class of objects we care to mention. Indeed,
one of the earliest needs of men even in primitive times was some
common system of classification of the objects used in everyday
social interaction, and for labour to become an object of such
interaction, it too must develop some form of categorisation. We
suggest, therefore, that a number of such "dimensions" of labour
supply and demand have been "selected" socially, and that these
form the basis of the "language" which makes information flows
and exchange possible. It should be said that we understand
"information" in a very broad sense, so that it can convey news,
and also induce expectations and certain attitudes in social
actors. A better expression, but one which would have been less
widely understood, would have been Parsons' "symbolism", which covers
both these aspects. If we believe that the structure of wages and
salaries is meant to be part of the process that makes cooperation
possible, then it seems reasonable that we should seek to explain
it in terms of these socially selected dimensions. These, it should
be pointed out may be known directly, like the degree of qualification, or the length of the working day, or they may be known
indirectly, in the way that, say, Jaques' time span of discretion is
supposed to be. Finally, we would suggest that these dimensions
have been selected in connection with certain needs of coordination
and adaptability of social labour, and that the measure which is
to incorporate these is related to the need to regulate these
dimensions of flexibility and of control of a society. This will
receive fuller treatment later in the essay.
The next step is to suppose that corresponding to each of these "dimensions" there is a "structuring" principle which permits the comparison and grading of different labour services according to each of these dimensions. So far our position does not differ greatly from that of a standard job evaluation procedure. The central point of our hypothesis is that rather than summing the scores arrived at from performance on a heterogenous collection of scales, we propose that these "structuring principles" are applied in a definite order which should be understood as being fixed for a particular society at a particular time. Let us imagine a set of such principles, $P_1, P_2, P_3, \ldots, P_k$, which represents the number and order of application for a particular hypothetical society at a given time. The application of the first principle, $P_1$, will produce a ranking of the different labour services in terms of the quality measured on the dimension it corresponds to. The application of the second principle, $P_2$, takes place on the ranking already produced by the application of the first. The third principle operates a transformation on a universe already structured by the first two, and so on. In this model the nature of the "transformation" effected is to "substructure" the classes created by the preceding transformations. Thus among a given set of workers, a certain structuring could be obtained by ranking according to the degree of qualification, and the categories thus ranked could be further substructured according to the state of working conditions. An important feature of this ordering is that the application of, let us say, the $i^{th}$ principle is carried out on a universe already structured by the principles $P_1$ to $P_{i-1}$, and by extension, the effect of the structuring produced by $P_i$ is "independent" of the application of $P_{i+1}$ to $P_k$. There is a certain similarity between this idea and the "nesting" of economic periods, but analogy should not be pushed further than this.
II.

In order to handle the dimensions of the different labour services more easily, we suggest that each service should be thought of as represented by a vector, the order of the dimensions in this corresponding to the order of application of the structuring principles. We can, therefore, represent the typical service thus: \((d_1, d_2, d_3, \ldots, d_k)\). In this way, should a particular labour service not be represented on one axis of comparison, then that dimension would be represented by a zero value in the matrix. This now permits us to look at the question of "independence", which may have worried the reader in the last paragraph on account of its lack of explanation. It also allows us to look at the possibility of "interdependence" or "contamination" between the principles.

"Independence" was left somewhat imprecise because the nature of this was not felt to be entirely independent of the kind of society in question. Let us suppose that there are two caricature societies, one in which authority is of a "hierarchical" nature, its functioning depending upon the manipulation of certain status symbols, the most obvious of which being the creation of a certain social distance between a superior and his subordinates by means of an income differential, and one in which authority is of a purely "functional" nature, and the task of organisation and coordination is a simple technical matter falling to those with higher levels of technical training. In the first case, we would expect to find a distinction between what we might call "hierarchical" posts, and "technical" posts, and in the second, a complete submergence of the first in the second, the exercise of a greater amount of control simply being a question of more "responsibility". In the first case we would expect the nature of the "sub-structuring" of the structure resulting from categories to be strict in the sense that only structuring within the danger otherwise being that the social
distance created by the hierarchical rule would be eroded in the
course of the generation of the wage and salary structure. The
essence of hierarchical authority is that it is not continuous, but
is graded in discrete steps. This need not be the case in our
second example where authority depends on technical competence,
although in practice we would expect less strict discreteness, as
training is partly measured in terms of diplomas. In the case, if
though, were there absence of discreteness, we would expect the
transformations effected to be of a proportional nature permitting
some "disruption" of the structuring created by the preceding
principles. If this is right, our model might prove capable of
distinguishing between two forms of authority through an examination of
the wage and salary structure.

Besides illustrating the way "independence" may depend on
the content of the measure, this example may also illustrate the
kind of "contamination" we can permit between dimensions. In the
case of the hierarchical authority, the first dimension to be
evaluated would be the service's position in the hierarchy, and the
second, the level of insertion in this of technical posts. In this
case if \( d_1 \) were to have a positive value, \( d_2 \) would be redundant, and
vice versa. In the "functional authority" example both \( d_1 \) and \( d_2 \)
could have positive or zero values, \( d_1 \) and \( d_2 \) corresponding here to
the degree of training, and degree of responsibility exercised,
respectively. We might represent this situation as, (i) \( d_1 > 0 \), so
for case two
\( d_2 = 0 \), or \( d_1 = 0 \), so \( d_2 > 0 \), for case one, and (ii) \( d_1 > 0 \) and \( d_2 > 0 \). The
reader may find this easier to follow once he has read the later
part of this essay where we examine the content and the order of
the dimensions and principles in a more concrete way.

Our next problem is to discover whether our model can tell us
anything about the order in which the different structuring
principles are to be applied. It is not possible to deal with this
concretely without knowing the content of the principles and the
way the processes they represent work. We can, however, get some of the way in seeing what is implied in concrete terms for the different principles by their position in the order of application. Some idea will already have been gained from the discussion of "independence", that is that in passing from $P_i$ to $P_k$ we pass from principles whose "structural integrity" remains intact to those whose "integrity" is very much diluted. By "structural integrity" we mean the extent to which the structuring derived from a principal principle is not distorted by the application of other principles. One of the implications of the order is that the principles applied early in the cycle take effect on a universe that is relatively less structured than that to which the succeeding ones will be applied. Thus, in terms of the logic of our model, and without relying on semi-empirical "hunches" we can see that the principles whose functioning requires the greatest "structural integrity" should occur earlier in the order of application. In the case of our caricature of a hierarchical society, we can see that the hierarchy of authority might need to be preserved above all else, in our "meritocratic" society it would be the training, and in the kind of society described in the Critique of the Gotha Programme, it could be working conditions.

The next question is whether our model can tell us anything about the spread of the wage and salary structure. Again the question cannot be answered completely in the abstract, but the concept of structural integrity once more gives some indication. We propose that the spread of the structure will be, in part at least, a function of the number of principles to be applied, and the strictness required of their structural integrity. In the case of our hierarchical society the initial distance between the members of the authority hierarchy would need to be great enough to allow the working of the other principles in such a way that they do not disrupt its structural integrity. The greater the number of dimensions of social labour to be controlled, the greater
would need to be the initial spread. Further down the order of principles there may also be varying degrees to which integrity must be preserved. For instance, it may be that skilled workers believe that their qualification should be worth more than any hours of unskilled overtime.

Footnote. There may be some interdependence between hierarchical authority and the number of dimensions of labour that are controlled, a very rigid hierarchy implying a considerable centralisation of control, thus a reduced scope for discretion in ordinary work, and the definition of a greater number of regulated dimensions of work.

The same kind of approach can be applied to our meritocracy.

So far then, we have argued that Hirsch's approach to the problem disentangling an aspect of social life that in terms of our existing forms of explanation by a nesting of the economic long and short period does not enable us to attribute any role to the authority structure, unless it is, by chance, of the pure "meritocratic" form. In this last section we have attempted to develop an approach that would enable us to introduce such phenomena, and even, by its capacity to embrace both the "meritocratic" and the "hierarchical" systems, allow us to distinguish the different empirical implications of the two, and possibly of others as well. This was achieved, it will be remembered, by supposing that labour services were evaluated socially according to a number of dimensions, and that to each of these corresponded a structuring principle. The structure of wages and salaries, we proposed was generated by the application of these principles in a definite order. We then sought to derive some of the implications of this ordering for the interdependence of these principles, for how we might expect principles to be ranked in reality, and for the spread of the wage and salary structure. This will be particularly useful when we come to look at some of the evidence Wooton presents in her book. However, in order to complete our understanding of the the working of the social measure we shall
first have to look more closely at the preconditions for the social reality of such a measure, and the functions it might be considered to fulfil. In the following section, therefore, we shall attempt to distinguish a generalised system of wage labour from previous systems of allocation and coordination of labour, and distribution of the product, to argue that the multi-dimensional social measure we shall suggest that is a feature of a generalised wage system, and that in the movement from primitive society to advanced society there has been increased division of labour, and functional differentiation of society, but that this is no reason to believe that certain functions disappear completely, and we shall suggest, therefore, that the paradigm of the "free artisan", which seems to be the basis of much of our thinking on the labour market, and the nature of industrial work, is very misleading.

IV.

SOME IMPORTANT DIFFERENCES BETWEEN THE WAGE-SYSTEM AS A METHOD OF REMUNERATION, ALLOCATION, AND ORGANISATION OF LABOUR, AND EARLIER EMERGENCE SYSTEMS, AND THE EMERGENCE OF THE "SOCIAL MEASURE".

One feature that will have been noticed in our social measure is that it does establish some form of quantitative equivalence between different labour services, and it is this quantitative equivalence which serves as an essential part of the control and adjustment processes connected with social labour.

If we look at the predominant form of labour in pre-industrial societies we find it to have been a tightly regulated process, in which the allocation of labour was undertaken by the social structure directly. In his book, "L'Athropologie Economique des Gouro du Cote d'Ivoire" (1964), Neillassoux offers an interesting and very precise description of the rules according to which labour was owed to certain members of Gouro society, and of the way in
which its fruits were distributed. The basic production unit was the extended family within which the "elder" commanded the labour of the men and women in his dependence. Different tasks were attributed to by social position, or by sex, there being, for example, a prohibition on certain tasks for different categories of members; women were not allowed to command slaves, and men, for instance, were not allowed to participate in the planting of certain crops. Within this set-up there was no individual reward for work done, there being instead participation in a collective meal, which took place in an almost ritual manner, there being a special order of service, and a special diet according to the position of different members in the division of labour within the family. For tasks which required a greater mobilisation of labour, there was again a strict set of rules according to which certain members of Gouro villages could summon labour, and again the pattern of reward took the form of a collective meal. It is interesting to note, by the way, that the segments of which the enlarged families were made were "sub-families" of man, woman, and children, and that the principal form of "labour mobility" took the shape of a breaking off of one of these segments as the family slowly extended itself.

Feudal society presents us with another interesting case in which the evaluation of labour services on an individual basis was extremely limited. The chief lay functions in feudal society were production, which was mainly agricultural, and defence, and it was along this line that society was divided. We shall deal briefly with the position of the artisan afterwards. In the upper classes of society the main alternatives open for maintenance in return for service were the "provender", and the granting of fiefs, the provender bearing a certain resemblance to the collective meal of Gouro society, and the fief being the granting of lands in return for an "obligation to serve". Marc Bloch (La Societe Feodale 1939) described the latter as a form of "wage tenure", but in spite of
some similarities with contractual relationships, and the fact that
the nature of service required was specific, the extent of the
service was not. In this respect, it was not dissimilar to service
demanded in an army, where complete devotion is required — the
penalty for "cowardice" being death. In both of these feudal
institutions any quantitative aspect of the exchange seems to have
been absent. Indeed, precise calculations of equivalence would
seem inconsistent with a society so notorious for the inexactitude
of its standards of measurement.

At the level of agricultural production in the feudal manor,
the same absence of comparison between labour services seems to
have been absent, the lord-vassal relationship being reproduced
between lord and serf, the services provided in return for the
lord's "protection" being the "corvée", whose extent was determined
partly as a function of tradition, and partly as a function of the
lord's requirements, and his ability to enforce them. It is also
interesting to note that at times of exceptional work, for example
at harvest time, an institution very similar to the collective meal
of the Gouro also took place, in the form of the "boon".

Already the reader should be suspicious of the plausibility
of the distinction that is sometimes made between a "command" and
a "market" economy in this context. Such a distinction, we believe,
is better reserved for the difference between the "war" and the
"peace" economies of advanced countries. We should like to suggest
that the important distinction is that between situations in which
work and distribution are regulated directly by the social structure
and those in which there is a mediating process separating these
two — we would argue for this being some kind of social measure —
and in this way it becomes possible to see that in the transition
to a generalised system of wage and salary payment, work has not
become independent of the complex of social relationships in which
it is embedded. In this connection, it will be interesting to look
at an intermediate case, that of the medieval artisan.

In the development of the medieval artisan industries there was a considerable move towards the recognition of individual work, and individual reward, and of differential reward for different work. We know that there existed, to some extent, possibilities for labour mobility, and a labour market, as H. Hauser reports in his book, "Ouvriers du Temps Passé; xvi\textsuperscript{th} and xvi\textsuperscript{th} centuries" (1899 Paris). A number of features enable us to distinguish it from the developed form of wage-system that we know today. The first is the extent to which these wage rates were regulated either by the corporations or the public authorities, setting maximum and minimum rates for apprentices, companions, and masters. In the early days the corporations were controlled by all of their members, although by the period Hauser studied, they had fallen mainly under the control of the masters. In many cases too, not only were the rates fixed, but also the maximum numbers that any master could employ. Mobility, too, was severely limited by regulations which favoured the employment of artisans of the same town, and which were aimed at encouraging those in search of work to move on. There was a distinct distrust of any man not attached to any master. It should be remembered, however, just how far the "labour market" extended; it applied only to the companions and apprentices, and in the case of the latter it was clearly of limited significance given the complex regulations governing apprenticeship. These restrictions would suggest that the wage structure was fairly limited, both in terms of the number of groups to be compared, and the number of dimensions of comparison. The extent which it might have to fulfill some of the functions that we mentioned earlier would also have been limited. Finally, perhaps an indicator of the similarity of the form of work organisation of the medieval town artisans to that of the surrounding feudal society was the fact that feudal lords found they were able to establish their own workshops using their dependent craftsmen, and establish a lively competition.
This brief sketch will serve to illustrate how the medieval artisan differed from the "free artisan" who has perhaps become a paradigm for economic thinking. Indeed, even in the periods in which the "free artisan" flourished, like the weavers in the eighteenth century, their prosperity was precarious, and difficult to defend against the power of the merchants who provided them with their raw materials. It was also interesting that protection against the merchants was one of the explicit reasons for regulation of rates by the medieval guild - risk taking being regarded as the proper function of the merchant.

How then should we see the underlying changes in the division of labour accompanying this evolution, and the relationship between the division of labour and the political aspects of the social structure? In feudal society we can observe a fairly close correspondence between the categories of the division of labour and those of the social structure. Much the same was true in the case of the Gouro, where there was a strict segregation of certain tasks, like the cases of commanding slaves, and the planting of certain crops mentioned earlier, according to social position. In the medieval town the categories of labour were probably formed according to the needs of apprenticeship, and the transmission of skill, but there was also some correspondence with the categories and relationships of the feudal society in which it was set. A clear hierarchy existed in the guilds, and there was the same distrust of working men unattached to any master, a distrust which clearly arises from the fact that the predominant bonds between men were those of dependence. The importance of technical progress in industrial society has transformed the relationship between work, its training, its object, and the grouping of functions into labour categories, which seems to result from a more complex process. This change has been observed by many labour sociologists, for example Alain Touraine, or Pierre Rolle. Since the advent of
"scientific management", more appropriately called the "scientific organisation of work" by the French, it is less and less possible to look for "trades" or "skills" of the old form, and the role of training in the formation of labour categories is different. Historically, the scientific organisation of work was no doubt the response of employers to the poor adaptation of the old trades to the new production technology, it would thus be unhelpful to look for "fragments" of the old skills left after the "rationalisation". Taylor's concern to break up the old workers' "coalitions" to which he devoted so much effort was also important in this. In this situation it is clearly wiser to look at the organisation of industrial work in a production unit as a whole, both from the point of view of the distribution of technical competence, and from that of authority, and the power to organise the work of others. This process requires a certain grouping of functions into categories for the purposes of training, and control etc, and for the transmission of labour market information. It is of such a society that a generalised system of wage and salary payment is characteristic. In the vision of social evolution that we are proposing, then, we are not seeking to deny that there are important differences between pre-industrial and industrial societies, rather we are suggesting that problems of consent and control do not disappear as societies become functionally more differentiated, as and that these functions, together with those of the regulation of flows of goods and services, cease to be assured directly by the social structure, they are then assured to a large extent by a system of monetary equivalences, and the problem then is to see how the working of this can meet what we might call these "social" requirements in addition to the more familiar "economic" ones. We shall now pass to a more concrete examination of the content and the order of application of the principles of our multi-dimensional measure, and look at the kind of adjustment process that is associated with it.
THE CONTENT AND ORDER OF THE STRUCTURING PRINCIPLES, AND THE PROCESSES OF ADJUSTMENT ASSOCIATED WITH THEM.

In her book, Barbara Wooton offers us a very rich sample of principles of remuneration gathered during her service on various public institutions for arbitration, or the regulation of wages. Indeed, she has been very much a part of "the modern method of wage determination". Confronted with the variety of criteria she presents one might be tempted to reply that these "criteria" are little more than "arguments" used in wage negotiations, and that she has not allowed for the rather special circumstances in which she gained her experience. We all know, for example, that an important part of the work in preparing a case for negotiation is the assembling of arguments that we are going to use. One might be tempted to say that these "justifications" are nothing more than casuistry, a moral cloak for human greediness. But even if this were true, it does not seem to suffice for a rejection of the importance of Wooton's examples. For this there are two reasons. The first is that it does not explain why the "cloak" is necessary at all, or why it is used, that is why these arguments have a certain force; and secondly, it does not explain why only certain arguments are used, and not any old arguments.

In the context of this article it is not really possible, and probably not even desirable, to give a comprehensive list of the different structuring principles. We shall, therefore, suggest a sample of fairly widely recognised factors which are thought to have an influence on the structure. We shall not consider here regional, age, and sex differentials, not because we believe these to be without interest, but because we believe that they would require an elaboration of the model beyond the scope of our present undertaking. The first such principle that we might mention is connected with the cases Wooton quotes of a someone in authority being paid
more than those subordinate to him. This is sometimes regarded as being the same thing as "responsibility", but there is another type of responsibility that is quite different from this, that is the degree of "trust" to be invested in an employee. These two branches of responsibility seem to correspond to a distinction that can be made between "hierarchical" and "technical" posts. We have already discussed something of the nature of this distinction in considering our "hierarchical" and "meritocratic" societies. The degree of qualification is a good candidate for being another of these principles, and seems widely enough accepted in theories of wage structure not to need much justification, although it is worth mentioning possible criteria for its measurement. These would be in terms of the cost of its acquisition, either direct or indirect costs in terms of foregone opportunities. Economists from Adam Smith to Marshall have recognised the influence of the state of working conditions; in addition, the frequency with which this occurs job evaluation schemes is also in favour of its inclusion. It is also specifically recognised in the wage packet, although as we shall argue shortly, our system enables us to differentiate two forms of recognition of working conditions. Finally, variations in the intensity, and duration of work seem important, and not to require explanation.

In the explanation of our model earlier in the text we said that it was the idea of there being an order of application that was central to our hypothesis. To this we now turn. It will be remembered that the implication of this order was that the structuring resulting from each principle was that there would be a grading of these in terms of what we called "structural integrity" and it was this, we argued, that would be the guiding rule behind the order of application of particular principles. The question which is before us now is what do we expect the order of the principles "structural integrity" we have mentioned above in terms of the requirements of
the different processes they represent? In other words, how much independence of the other processes represented is needed by each one? In addition to being a factual question, in the past this has also been a normative one, as it was at the time of the emergence of political economy as a science when it was argued that certain irrational elements of society, certain restrictive practices affecting markets and trade, certain privileges of the aristocracy of the Ancien Regime, needed to be abolished to allow the free functioning of the forces of the market. To return to our initial question, it should be understood that the order does not necessarily imply that one of these processes is in some way more "important" than the others. There is no reason to believe that an economy can function any more without a viable system of organisation as it can without a viable system of the production of labour skills, or a way of regulating the quantitative supply of labour. Thus when we argue, as we do from here on, that the system of authority needs to come first in a ranking to unravel the wage and salary structure of our society, our argument is in terms of its requirements of structural integrity.

We suggested earlier in this essay that one of the central features of "hierarchical" authority was that it relied heavily upon the manipulation of certain status symbols whose function was to create a social distance between those exercising authority, and those subordinate to it. It seems contrary to the logic of such a system that it should admit any disruption of the order it establishes by the remuneration flowing from other principles. Indeed, a pure form of hierarchical authority would seem to require absolute structural integrity. A fair amount of the evidence that Wooton presents suggests that some form of hierarchical authority is indeed widely present in our society, the argument that a person's position itself justifies a certain level of remuneration being fairly common. We also know there have been a number of cases in which foremen...
felt their authority to be eroded by the fact that their subordinates' earnings derived from piece rates had overtaken their own earnings. It seems also to be true that employers recognise this as a fair argument, although they may dispute the size of differential necessary.

One of the consequences of a hierarchical form of authority is a distinction between hierarchical and technical posts, a distinction, it will be remembered, was not present in the "meritocratic" model. Given that different technical functions are associated with different levels of the hierarchy of authority, a principle of structuring which ranked these by their level of insertion in this hierarchy would be the least likely to cause any disruption to it. This would lead us to expect the company lawyer in the service of a large company to be grouped with the category to which his professional competence contributes something of the general competence associated with that category's function. He would thus be better paid if his advice went to the top sections of management, for example, than if it went simply to departmental management. We would also expect him to be better paid than a skilled worker who had undergone an equivalent period of apprenticeship.

Clearly, the damage that can be done by "idiots" in authority means that it is unlikely that even in our hierarchical example we should expect people occupying top posts generally to be inapt for them, but from the exposition of our hypothesis so far, there is no reason to believe that there would be a coincidence with the results implied by human capital theory, except under special circumstances. The general implication of our regarding of principles so far is that training will be differentially rewarded, but only within the "non-competing" groups the levels created by the first structuring principles. In Western European societies it is a fairly common feature of training that there is
a certain "social stratification" in connection with access to
different types and levels of training. Indeed, the overdetermination
of the training process in terms both of access to it and position
and reward following from it suggests that, at least in Western
Europe, rate of return is but one consideration among many, which
further suggests that its requirements of structural integrity
would be lower than for the preceding principles.

The concept of structural integrity also allows us to distinguish two types of reward for working conditions, that where poor conditions are an inherent part of the job, and where these are periodic elements. The first would seem to require greater integrity if people were to believe the incentive strong enough. Thus we are led to distinguish between payment for say work on an oil rig, and the "dirt" and "danger" money that are paid from time to time in the building industry. This separation suggests that differentials regulating the intensity and duration of work might require insertion between the two, overtime on a job with inherent bad conditions being calculated on the basis of this, and overtime on one with periodically bad conditions not being so. This should not be surprising as in the first type of job overtime will be in the same bad conditions, while in the second there is no necessary connection between the two.

As a final remark before passing on to look at the nature of possible adjustment processes, it is perhaps worth noting that in the context of this model it no longer appears paradoxical as Wootton suggested that those on the lowest pay should also be those working in the worst conditions and the longest hours, and this in a society in which conditions and hours are supposed to be \textit{subject} objects of compensation.
VI.

THE PROBLEM OF THE ADJUSTMENT PROCESSES AND OF THE TRANSITION FROM
THE SOCIETAL TO THE ORGANISATIONAL LEVEL.

One interesting feature of the order of application is that it corresponds to variations in the length of the planning horizon necessary for different household decisions. It was once said in China that it took three generations to make a mandarin because of the family capital that had to be accumulated so that a son could prepare himself for the examination. To the extent that preparation for the holding of certain positions of authority requires a social training over and above any technical training, the horizon required for access to the higher levels of the authority structure may be greater than that of a single generation. It seems likely that the importance of private education in Great Britain derives partly from this. The acquisition of technical competence, requiring only technical training, would require a shorter horizon, although the range of forms of technical training open would also partly be a function of family means, for example, to maintain an adolescent through prolonged studies. Once the level of technical competence is given there is a shorter horizon relating to choice of job, or choice of career in the form of choice of a particular series of jobs, each of which may lead to the next. Finally, the decisions involving the shortest horizon would be those concerning overtime and similar incentives. Thus a certain correspondence between the supply side and the order of these principles would seem to exist.

If the supply side has been relatively simple to deal with this is because we have pushed all the problems on the demand side. The problems are the following: what is the relationship between the dimensions of work that are evaluated and the social structure; what is the relation between this and the firms that are the main employing organisations in a society, and what are the mechanisms of adaptation that these can use so that the supply of labour is suited to their needs?

At the societal level there is some correspondence between the
order of application and the depth at which certain social processes
are embedded, "depth" here being best understood as an indicator of
the extent to which one process's change affects the operation of
the others. In this respect, the political structure seems to be
the most deeply set, so deeply so that many writers have suggested
that only military defeat, civil war, or revolution are capable of
bringing about major changes in this. The educational system has___
Footnote: Barrington-Moore Jnr, in "The Social Origins of Dictator-
ship and Democracy" 1966 offers an interesting analysis of the
Civil War in England, the French Revolution, the American Civil War,
followed by a study of China and Japan, with a study of India and
its problems as a counter-example to test his hypothesis.

an ambiguous role, both as an institution in which children are
taught to recognise authority and to obey, and in which they acquire
the bases of the technical skills they will need for professional
activity later. It would be interesting if we could establish that
the former had a different pattern of evolution from the latter, but
in such a controversial area, to assert that this is the case without
further evidence would be equivalent to wishful thinking. It does
however seem reasonable to suppose that the production of technical
training is considerably more adaptable than the system of political
control, and that change in the former does not necessarily provoke
change in the latter. The passing of the "Ten Hour Act" did not
bring about the catastrophe that economists like Senior predicted,
and it seems that adjustment for working conditions, and for XXXX
duration can take place without provoking any change in the "deeper"
processes.

Up until now it may have appeared to some readers that we
thought that there was only one hierarchy in society, that society
was like a pyramid rather than a range of mountains with perhaps
Mount Everest dominating. There is nothing in our "social measure"
however, that entails the existence of a single hierarchy. There is
also a number of reasons why such a measure should work throughout
the "mountain range". Each firm is operating in society that is
already structured, and in which the educational system inculcates
certain norms of cooperation and obedience. There is also a certain institutionalisation of the division of labour in the form of occupational categories and recognised diplomas, not to mention certain forms of occupational defence. Indeed, given that patterns of behaviour, like response to authority, have to be learned, and this is apparently quite a lengthy process, it would be surprising if each employer went to the expense of "undoing" what had been taught outside, and starting afresh on each new employee. Finally, there is also nothing in our model that denies a certain scope for labour mobility (at all levels) towards greater opportunities, and this would have the effect of creating certain contours of equivalence between organisations.

Two main forms of adjustment are open to employers in the face of supply problems; one lies in the possibility of increasing the integrity of the structuring resulting from one of the principles, or at least of reinforcing this in the face of supply problems for that dimension. We mentioned earlier that skilled workers might consider that the skill differential was too easily made up by unskilled overtime. The problems with this kind of adjustment are not hard to see. A reinforcement of, for example, the skill differential would soon have repercussions on the integrity of the previous principles. In this respect, the employer's freedom of manoeuvre is limited. It is conceivable that fluctuations in market demand might work through our set of structuring principles by a reinforcement, or a weakening of the integrity of different principles.

A far more likely form of adjustment would be that associated with the regrading of jobs, the recognition of different jobs as bearing certain of the valued dimensions, for example recognising the "skill content" of certain functions, and attempts to reorganise work so that the need for the scarce dimension is reduced. For some dimensions of work this will be easier than for others. What this implies is that work itself must be treated as
a "variable", according to the expression of F. Sellier. In view of what we have written about the "dimensions" that are socially valued, we can see that actual work can either vary by the change of its content, through the addition of new tasks or the removal of old ones, or, with its content remaining constant, it can be classified differently. Both of these phenomena are of considerable generality in the world of labour, there being both struggles over the classification of jobs, and over their composition, for example, to prevent changes of content that would lead to the reclassification at a lower level, in a more familiar context, to prevent their substitution by a new technology accompanied by a different set of skills). From management's side, the application of "the scientific organisation of work", and the destruction of the old skill-system is a very good example of such variability. Indeed, it is hard to see how the "principle of marginal productivity" could have worked without allowing for this variability. This opens up some interesting perspectives for analysing an entrepreneur's employment strategy.

We have already suggested that possibilities for mobility would tend to create certain contours of equivalence between organisation wage and salary structures, and that he is operating in an already structured world. The variables on which he can act are the constitution of the job in terms of the tasks he is going to group together to form the various functions, and to a limited extent, the number of jobs he will offer. He probably has some freedom in the choice of organisational model, but there are also constraints on this. In creating his key posts, for example, he is limited by his ability to pay someone of the necessary competence for the set of tasks he has grouped in them, and by the fact that the set of other posts must be coherent. To some extent a parallel may be drawn with the situation of the football manager who has to choose his key players and then build the rest of the team around them. The optimal organisation would be that which, while allowing the entrepreneur to
achieve his objectives, imposes the lowest costs. In this presentation the entrepreneur has organised his work from scratch, but this is rarely the case, just as most football managers work with a team partly inherited from the past.

A final problem we might look at before coming to our conclusion, is that of the relationship of distribution between wages and profits. This cannot be dealt with in depth here, but a return to our two imaginary societies can shed some light. The "meritocratic" structure looks as though it would admit a degree of compressibility, and thus could be fairly accommodating to fluctuations in the level of profits. The "hierarchical" wage structure, on the other hand, appears likely to be very much less "compressible", and might behave more like the minimum for subsistence of the early nineteenth century economists, only it would in this case be a "social minimum".

To sum up the course of our argument through this paper, we started by proposing a "multidimensional social measure" which was developed to help unravel the various factors affecting the wage and salary structure, and in particular, to see the effect of social processes that worked even through the economic long-run, and which would prevent us from using the kind of solution that Hicks did. The measure was to consist of a number of "structuring principles" which corresponded each one to a dimension of work, and which were to be applied in a certain order, each structuring principle being applied to the structure generated from the application of the preceding principles. This gave rise to the concept of "structural integrity", the structure derived from the first principles to be applied being greater than that of the later ones. This gradation of structural integrity then enabled us to derive a number of theoretical expectations as to the order actual principles would need to be placed in. It should thus be possible from a knowledge of the structural requirements of each principle to say what its relative position in the order should be, without recourse
to semi-empirical guesses as to what the order actually might be. This could also constitute a potential test for the hypothesis, as could a number of the other "results" we derived from it concerning interdependence, and contamination between principles. It is worth just saying perhaps that the functioning of such a social measure need not be fully conscious, and in this respect it might be compared to Jaques' time span on discretion, or to Chomsky's generative grammar, although this is not to say that the structuring principles are somehow "innate" and immutable. The next step in the essay was to look at some of Wooton's findings, and to note that the model did appear to have a fair degree of explanatory power. This was not, however, intended to constitute anything like a rigorous empirical test. Then, finally, we looked at the relations of the principles to certain social and labour market adjustment processes. In the closing paragraphs we shall offer an outline of some of the implications of the hypothesis for incomes policy and the problem of low pay.

VII.

SOME IMPLICATIONS FOR ACTION ON THE PROBLEM OF LOW PAY, AND FOR INCOMES POLICY, AND OBSERVATIONS OF THE STABILITY OF THE WAGE STRUCTURE.

The fact that the links between different wages pose a problem for incomes policy is not a new discovery, but one thing to emerge from our way of looking at the wage and salary structure, is the oft neglected importance of the relationship between the highest salaries and the rest, or to put it another way, the relationship between the salaries of those high in the social hierarchy, and those beneath them. Very often members of the middle class are be heard to talk of the need to redistribute income towards workers on lower wages, the source of the redistribution being those on higher wages. That is that a compression of the lower half of the wage and salary structure is recommended without a corresponding compression of the
whole structure. Such a position is often defended by the observation that a simple redistribution of the incomes of the richest would not solve the problem of low pay, and this is arithmetically true, but in so far as a degree of redistribution does not take place at this level, and the social hierarchy remains unchanged, it seems that a double sacrifice is being asked of the better paid workers - loss of relative wage, and loss of social position - in the name of a parody of solidarity, equality, and fraternity at the bottom of the social hierarchy. In the light of this it is perhaps easier to understand recurrent demands in the British Labour Movement, and other labour movements, for action on the salaries of judges, top civil servants, heads of nationalised industries, and the upper echelons of company management, and so on. It is not an irrational reaction, or something provoked by greediness, which according to Bertrand Russell was wanting what I've got and you haven't, but something growing out of a consciousness of what these salaries represent. It thus seems that in normal times the chances of effecting a compression of the structure to help those on low pay without applying this generally are limited. Moreover, if we are correct about the importance of the role of the system of authority and the differentials accompanying its functioning, it seems hard to see what success can be achieved on low pay without some action on the structure of society itself. The same difficulties seem also to apply to incomes policy used against inflation, unless they are "freezes". Anyhow, this amounts to saying that the roots of low pay go very deep, and that it is far from being the "marginal phenomenon" that it is sometimes supposed to be.

Another egalitarian implication of our hypothesis is that policies to achieve equality through education can only be of limited value in a society that is already structured according to six factors other than training. Indeed, the educational spending policies in the West since the war do not seem to have led to any
appreciable compression of the overall structure. If there has been any compression it has perhaps come with the reduction of the advantages of qualified work over unqualified work.

In spite of the great stability of the wage and salary structure, there have nevertheless been two periods in which apparently irreversible change took place, these periods following the two world wars. If there was a change in the overall structure, as well as in the qualification structure, it occurred then. It would, evidently, be necessary to look more closely at the details of these two "markets", but if the authority structure of society has changed, it has probably done so most in these two periods. Both the first and the second wars were periods of experimentation and innovation in the organisation of work, Taylorism being widely applied in the munitions industries of the 14-18 war, and the "human relations" and new techniques of organisation being applied in the 39-45 war. The enormous problems of mobilisation and organisation for the wars also had their effect on government structures (eg the changes in Lloyd George's cabinet) and on the civil service. Indeed, nationalisation of certain sectors of industry was possible after the second war, it was due in large part to the public control of these sectors during the period of mobilisation. The forces of stabilisation of an altered set of rules, a changed social measure, would probably have set in shortly afterwards with the crystallisation of new structures, and the investments made by individuals in certain career plans, investments which they would afterwards defend.

Footnote ** It was, of course, the landings in North France in 1944 which led to the massive vindication of "management by objectives", in a context where, previously, strict hierarchy had always been the rule.

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