



Durham E-Theses

Conflict and consensus in industry: the analysis of control in a steel plant

Bowen, Peter

How to cite:

Bowen, Peter (1972) *Conflict and consensus in industry: the analysis of control in a steel plant*, Durham theses, Durham University. Available at Durham E-Theses Online: <http://etheses.dur.ac.uk/10132/>

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a [link](#) is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full Durham E-Theses policy](#) for further details.

CONFLICT AND CONSENSUS IN INDUSTRY:
THE ANALYSIS OF CONTROL IN A STEEL PLANT

by

PETER BOWEN

The copyright of this thesis rests with the author.
No quotation from it should be published without
his prior written consent and information derived
from it should be acknowledged.

ABSTRACT

This study is concerned with the application of key perspectives in industrial sociology to the problem of the social control of work in industrial organisations, a problem central to many issues affecting the quality of industrial relations in our society. It is argued that the achievement of effective plant systems of social control depends upon the compatibility of decisions taken by management and trade unions with both the system requirements of industrial organisations and the social requirements of employees whose consent to these decisions is crucial.

In the first part of the work an attempt has been made to demonstrate how a balanced treatment of systems, order, conflict and social action perspectives in industrial sociology can be used in the consideration of what constitutes the concept of control. A model of control is outlined which emphasises the necessity of exploring the nature of managerial and labour values and decisions as these define the scope and content of the control process over a period of time. The model also illustrates the sensitivity of these values and decisions to system and social influences surrounding the organisation and its participants, and which set constraints within which the control process must move if it is to remain stable.

Aspects of the model are applied to the analysis of control in an integrated steel plant. This analysis constitutes the second part of the thesis. The emphasis is upon the determinants of stable control, but the model is also applied to indicate the sources of instability and strain.

Ultimately the thesis draws together within one framework concepts derived from the separate but inter-related analytical areas of systems and social integration. In this way, it is envisaged that the work as a whole makes some contribution to a more systematic study of social problems in the world of work.

TABLE OF CONTENTS

	<u>Page</u>
Abstract	
Introduction	1
PART I: THE CONCEPT OF CONTROL	
I Theoretical Approaches to Problems of Integration in Industrial Organisations	8
1. Systems integration and social integration	10
(a) Systems integration	11
(b) Social integration	15
(i) Consensus and conflict: towards a theory of co-operation	16
(ii) Social action theory	31
2. Conclusion	45
II Enterprise and Actor: The Contextual Framework of Control	50
1. The context of control: system and control	50
2. The context of control: actor and control	67
3. The context of control: occupation and control	83
4. The concept of control: system and social integration	87
III Consensus, Co-operation and Conflict: The Process of Control	90
1. Interdependence and self-maintenance in social systems	92
2. Power relations and the stability of control	104
3. System, Actor and Control: A summary	115
PART II: THE ANALYSIS OF CONTROL	
IV The Stability of Control in a North Eastern Steel Plant	125
1. The contextual framework of control at Ironhill	128
(a) Systems constraints: the socio-technical system and its environment	128
(b) Social constraints: the steelworker and his environment	146
2. Conclusion: the interaction of social and system constraints	163

	<u>Page</u>
V Orientations of Manual Staff to Work and Control at Ironhill	166
1. Attitude survey of manual workers	166
(a) Attitudes towards job	170
(b) Attitudes towards work	174
(c) Attitudes towards occupation	188
(d) Opportunity and control in steel	192
(e) Occupational influence over control	201
2. Conclusion	215
VI Orientations of Non-Manual Staff to Work and Control at Ironhill	221
1. Attitude survey of clerical workers	223
(a) The values and class identification of the clerk at Ironhill	224
(b) The clerk and trade unionism at Ironhill	228
(c) The clerk and his job in steel employment	236
2. Clerks and the control system at Ironhill	241
Conclusion	245
Bibliography	252
Appendices	
Appendix A - Manual Workers Questionnaire	
Appendix B - Clerical Workers Questionnaire	

PREFACE

This study developed out of a longstanding interest in the steel industry and steelmakers. My earlier employment in the steelmelting shops of the English Steel Corporation in Sheffield left an indelible impression of the great might and scale of this industry, and of the skill and traditions of its employees.

It was made possible by the support of members of management and trade unions in one North-East coast steel-plant between 1968 and 1971. Their names, and that of their steelworks, must remain anonymous. To them I should like to express my gratitude for their patience, help and kindness. To the steelworkers of Ironhill this thesis is dedicated.

I wish to acknowledge all I learned from many fruitful discussions with Mr. Robin Smith of Durham University Business School, Mrs. Monica Shaw of Newcastle upon Tyne Polytechnic, the late Mr. John Page, member of the National Executive Council of the Iron and Steel Trades Confederation, and Mr. Alan Odber, Principal of the British Steel Corporation's Staff Management College, Ashorne Hill. Their advice saved me from many errors of fact and interpretation. I must also acknowledge a sincere debt to my supervisor, Mr. Richard Brown, for his invaluable guidance and support during the period of my research. They are not to be identified, however, with any of my statements, opinions or conclusions.

The material in Chapter VI on non-manual steel employees is largely derived from joint research conducted with Monica Shaw. It is condensed from a paper previously published in the Industrial Relations Journal, Vol.3 No.2, Summer 1972 on the subject of "Patterns of White Collar Unionisation in the Steel Industry".

Finally I should like to thank Mrs. Diana Platt for her able typing of my scripts.

Peter Bowen,
Department of Behavioural Studies,
Newcastle upon Tyne Polytechnic.

INTRODUCTION

Industrial Sociology as a discipline has suffered from the absence of a suitable conceptual framework for the analysis of social problems in the world of work. The tendency has been in research to collect empirical material in order to demonstrate the superiority of one theoretical position at the expense of another. In consequence the possibility of developing explanatory models which utilise some of the complementary aspects of various theories now available to the industrial sociologist has received only limited attention. A primary concern of this thesis is to consider the case for, and the benefits of, theoretical unification in the fields of systems and social integration in industry.⁽¹⁾

The study is divided into two parts. In the first part, consisting of three chapters, existing theoretical approaches to the analysis of problems of integration in industrial organisations are considered. In the first chapter a case is outlined for the systematization of theory in the consideration of the interrelations between systems and social integration in large organisations. In the second and third chapters the case for theoretical integration is developed in more detail by outlining a model for the analysis of one particular organisational process of focal concern in the investigation of systems and social integration - that of control. In the second part of the study, which also consists of three chapters, some aspects of the model are applied to the exploration of the process of control in one industrial organisation - a medium sized steel plant situated in the north of England.

The selection of the control process for particular examination is important. If in fact the case for theoretical integration in Industrial Sociology rests upon a need to resolve current conceptual ambiguities in the analysis of such problems as the relationships between order and

(1) "Systems" integration here refers to the integration of the functional and analytical elements of business organisations as social systems. Social integration refers to the integration of actors within these organisations.

conflict, stability and change, shared values and opposed interests, system and actor, then the selection of a process which illustrates the nature of these inter-relationships is crucial. In this work, particular attention has been given to one particular aspect of control: the control of plant systems of industrial relations between employers and employees (and between groups of employees) concerned with the process of job and work regulation. Consequently the major theoretical contribution of the first part of the study is to demonstrate how a balanced treatment of order, conflict and social action perspectives can be applied to the problem of what constitutes and what determines stable and effective patterns of plant systems of control.

The concept of control in industrial organisations remains ambiguous. For some writers it extends only to those well-defined aspects of industrial relations regulated by collective agreements. Frequently, however, such an approach ignores the wider implications of the situation and conditions in which these agreements are made, including such questions as the attitudes of employees whose consent to the procedures and substance of work regulation is essential. In this study the system of control is taken to encompass those rules, whether formal or informal, which exist to regulate the relationships between employers and employees and between groups of employees in industrial plants. Whilst such rules are seen to reflect the influence of certain technical, financial and marketing requirements of the enterprise, they also reflect the interests and requirements of participants at various levels in the system. Judgements of the effectiveness of any plant system of control are made, therefore, in terms of the extent to which the system meets both the business objectives of the enterprise and the interests of participants, and the extent to which changes in the pattern of rules and rule-making continue to meet changes in the requirements of the enterprise and its participants.

A further criteria for judging the effectiveness of plant control systems is the extent to which participants legitimise the means of rule determination as well as the rules themselves. In this respect it is important to measure the expectations of rank and file employees for involvement in the making of decisions. Little is known, for example, about the degree to which the existing span of jointly controlled areas of work in particular industries is acceptable to management and unions, or about their expectations for the future. Even less is known about the actual areas of influence over work-control, experienced or sought by the mass of rank and file employees who are not directly associated with the institutionalised process of collective bargaining. Similarly, little is known about how employees perceive the distribution of influence over control between different levels of the plant hierarchy both in the existing and in an ideal situation. Some of these questions which have an important bearing upon the stability of industrial relations are considered in Part II of the thesis concerned with the analysis of the control process in the steel industry.

A control system is therefore most usefully understood as a process for the establishment of policies, rules and practices regulating the activities of the organisation and its members. In order to understand what influences the effectiveness, character and direction of change of this process, however, we need to be concerned not only with the contextual constraints imposed upon the system by organisational variables derived from the socio-technical system of the plant and its external environment, but also with such notions of influence, power and legitimate authority which derive from a consideration of the values of actors, as these are shaped by their existing work situations and their wider community and social environments. In important respects therefore the process of control is best seen as the outcome of an interplay between the requirements of the organisational

system for the optimisation of its resources on the one hand, and the requirements of the participants of these organisations for the optimisation of their interests on the other. The initial steps in building a model of control are concerned with the location of the control process within parameters set by the requirements of organisations and their members for effective systems and social integration.

Beyond this, as has already been suggested, the model seeks to provide broad criteria for the assessment of what constitutes an effective control process. In this context, the concepts of "co-operation" and "coalition" will be introduced. Based upon the notion of the industrial organisation as a "plural" society and upon the manner in which certain decisions governing the regulation of work are taken by industrial coalitions of employers and employees, particular attention is given to the co-operative process in which groups of these participants seek to secure their occupational and business objectives within an interdependent working relationship. It is argued that the existence of co-operation so defined is a necessary and indispensable basis of stable plant control systems. A stable state of the control system exists where the separate, and sometimes conflicting interests, of the members of industrial coalitions are maximised through co-operation within boundaries suggested by system and social requirements. Fully developed the model directs attention to the need to explore the nature of both managerial and labour values as these define the scope and content of the control process over time, as well as the system and social factors surrounding the organisation and its participants functioning to set the constraints within which the control process must move if it is to remain stable.

Certain aspects of this model are applied to the case of an integrated steel plant and discussed in the second Part of this thesis. The plant and industry were selected in the belief that they would provide suitable sites for the exploration of factors contributing towards stable and effective plant systems of control.

Thus attention is given in Chapter IV to the nature of both systems and social factors operating to influence the stability of control in this plant. In the two subsequent chapters particular emphasis is placed upon the pattern of social integration within the plant, upon the orientations of both manual and non-manual employees there to work and control, and upon the ways in which these orientations are structured by membership of distinctive social categories both within and outside the plant. These include social class, residential community and occupation. One important aspect of the analysis in these chapters concerns the ways in which the perceptions of the respondents investigated towards both the existing and ideal distribution of influence over control can be isolated and measured. With this information it becomes possible to consider the area of inter-occupational normative consensus within the labour force over the existing and ideal profile of control in the plant. At the same time, the analysis of respondents' attitudes to aspects of their job and work situations permits some evaluation of the wider facilitating factors in the plant's socio-technical system structuring individual and occupational attitudes towards control.

It is our contention that the stability and effectiveness of control in this plant results from a relatively high degree of reciprocal influence between management and labour over the form and content of the system of work regulation, and that one important source of this particular pattern of control is to be found in the high level of individual involvement in decision-making accorded to manual workers in steel. The possibilities which exist for involvement and self-advancement in manual work are likely to reinforce the widely shared beliefs of these steelworkers in the intrinsic value of their work, and these values are likely to be sufficiently strongly developed to counteract the development of a purely dichotomous social imagery directed against the employer, or a purely negative or neutral attachment to steelwork itself.

Whilst the main emphasis in Part II, therefore, is upon the determinants of stable plant control systems in one basic industry and in one steel plant, the model is also applied to indicate the sources of instability and strain. This analysis is undertaken principally at the level of social integration where the limits of labour consensus on the desirability of co-operation with management are drawn in occupational terms. The degree of heterogeneity amongst the major manual occupations on such subjects as work satisfaction, status and influence sets clear limits upon the stability of control; this question is discussed in Chapter V. Of equal interest, however, is the extent to which the members of one occupation legitimise the institutions of control which exist and are available in the plant. In Chapter VI this particular problem is investigated with reference to clerical employees who are also members of the same trade union, a union whose membership consists predominantly of manual workers. In this analysis the implications for the control system are explored in a situation where clerical opinions divide considerably on what constitutes an effective form of trade union representation, and on whether the particular occupational interests of these workers can be met by membership of a steelworkers' trade union. It follows that the effectiveness of control is not merely a function of how far actors legitimise management-union relationships at plant level, but how far also they legitimise the formal trade union institutions representing their interests in the control system.

Ultimately it has to be admitted that the work has several objectives. It is concerned with the building of a theoretical model of control and with its application. It is concerned also with the integration, albeit limited integration, of sociological theories in the study of organisations. It is concerned with the problem of articulating the processes of systems and social integration within complex organisations. If the breadth of the study is wide, it is no wider than that required to investigate its

focal concern: the determinants of effective plant systems of control. In essence, the argument which follows is addressed to one central proposition. This is that the achievement of an effective system of control depends upon the compatibility of the decisions taken by members of industrial coalitions with the systems requirements of the organisations in which they are located, and with the social expectations of the actors who are required to legitimise the decisions of industrial coalitions. To state the proposition is one thing: its discussion, however, raises basic questions and problems which have serious implications for the future development of Industrial Sociology as a discipline.

At the same time certain problems discussed in the second part of the thesis raise issues of more topical concern. Over a period of some 80 years and until recently the iron and steel industry of this country has exhibited a comparatively low level of industrial conflict measured by the usual indicators of official and unofficial strikes. Little is known generally about the pattern of institutions, industrial relations practices and occupational ideologies contributing towards stable and effective systems of plant control. Even less is known about the effects of the relationships between manual and non-manual employees within such systems. The case study provides some insights into these institutional arrangements and work practices in steel and into the attitudes of both manual and non-manual employees to work and control in an industry whose industrial relations history remains comparatively obscure.

If the first objective of the thesis, therefore, is a critique of existing sociological perspectives of the theory of organisations, the second objective of no lesser importance is a resume of an industry providing some notable if overlooked examples of stable and effective plant systems of control. To this discussion we shall now turn.

PART I

THE CONCEPT OF CONTROL

CHAPTER I

THEORETICAL APPROACHES TO THE ANALYSIS OF PROBLEMS OF
INTEGRATION IN INDUSTRIAL ORGANISATIONS

What constitutes an appropriate sociological approach to the analysis of problems in the world of work, and especially to the analysis of the relationship between management and labour in industrial organisations?

This question, often raised, remains unresolved. Nowhere is the fragmentation of ideas created by the absence of a coherent theoretical approach more vividly illustrated than in Industrial Sociology. Here the utilisation of sociological theories as competitive rather than complementary perspectives has, from the very inception of the subject, institutionalised the existence of contending frameworks of analysis. The existence of a theoretical dualism has been recognised by many writers; but two writers may be mentioned briefly to indicate the nature of current concern.

Stone, for example, writes:

"The great tendency in industrial relations research is to have the empirical evidence illustrate the frame of reference which is being used rather than to test propositions." (1)

Whilst Lammer has noted:

"The controversy in Industrial Sociology about the degree to which the interests of labour, management and other (more or less) organised groups in enterprises are compatible has gradually become institutionalised. Again and again in the last twenty years the advocates of the "functionalist" approach or the "human relations" philosophy, and usually both, have been castigated for neglecting power and income differences and conflict and competition between contending parties within industry. They are charged also as ultimately playing into the hands of the "powers that be".....

(1) R.C. Stone "Conflicting Approaches to the Study of Worker-Manager Relations". Social Forces Vol. XXXI(1952) P.122.

and

".....the arguments seem to lead to the conclusion that there are two irreconcilable theoretical models in terms of which organisational life can be explained."⁽²⁾

Other writers, however, take a more extreme view of the situation. Some deny the existence even of an elementary theoretical framework in the analysis of industrial relations. Dunlop, for example, claims that:

"To date the study of industrial relations has had little theoretical content. At its origins and at its best it has been largely historical and descriptive.....Although industrial relations aspires to be a discipline (it).....has lacked any central analytical content."⁽³⁾

Conversely others see the problem not so much as one created by the absence of theory; rather, by the existence of a plethora of incomplete and inadequate explanations of industrial behaviour.⁽⁴⁾

If there is disagreement about what constitutes an appropriate approach, there exists conversely a growing awareness of the implications of dissensus and ignorance in this field of enquiry. Fox believes that whilst the structural realities of industry require a "pluralistic" analysis, employers and sections of the public employ a "unitary" reference. He goes on to say:

"Where this is the case, the perception and handling by employers of labour relations are prejudiced, and judgements by the public of industrial relations issues are distorted."⁽⁵⁾

- (2) C.J. Lammers "Power and Participation in Decision-Making in Formal Organisations", American Journal of Sociology, V.73 No.2 1967 p.201.
- (3) J.C. Dunlop "Industrial Relations Systems", Holt 1958, p.6.
- (4) H.A. Turner "Labour Relations in the Motor Industry" Allen & Unwin, 1967
- (5) A. Fox "Industrial Sociology and Industrial Relations" Research Paper No.3 Royal Commission on Trade Unions and Employers' Associations H.M.S.O. 1966, p.1.

and

"Many still see the industrial firm as a unitary system whose "natural" pursuit of a common purpose is wilfully disrupted by trade unionism. On such a view, trade unionism still bears the stigma of an alien and even slightly disreputable force, acceptable enough outside the workplace in its role of negotiating general wage rates and working hours, but of doubtful respectability when it comes to challenging managerial authority within the plant."⁽⁶⁾

One aim of the research is to make a contribution to this debate.

In this chapter we shall examine the case for a more balanced approach to the analysis of social behaviour in industry, utilising existing perspectives in Industrial Sociology, but seeking points of integration between them.

1. SYSTEMS INTEGRATION AND SOCIAL INTEGRATION

In order to give direction to the chapter, however, it is proposed to concentrate in particular upon an area of investigation of recurring interest to students of industrial relations concerned with the problem of theoretical integration outlined above. This area, in general terms, deals with the nature of system and social integration in business enterprises. It is an area with diverse ramifications and one which has generated considerable enquiry.

Two particular problems are associated with the existence of contending frameworks of reference in Industrial Sociology and with the propagation of its apparent dualism. The first concerns the problem of the integration of industrial organisations as "open" social systems; the second with the problem of the integration of social action within these organisations.

(6) Ibid p.32

(a) SYSTEMS INTEGRATION

Organisational analysis, as Silverman points out, has been largely associated with the Durkheimian view of organisations as "natural systems".⁽⁷⁾ The mode of analysis typically invoked in a "systems" approach is functional, where organisational processes are evaluated for their effectiveness in subserving what are seen to be the commonly held goals of the enterprise, and where the enterprise itself functions to meet certain economic requirements of the society of which it is part.

The functionalist approach indeed illuminates many of the central problems of Industrial Sociology. It has been utilised by various writers to deal with the analysis of organisational change, where organisations are seen to change in accordance with their environmentally determined needs; to deal with the nature of industrial relations systems where such systems are seen to be based upon a consensus of values; to deal with the problem of deviation in terms of the concept of informal organisation and to offer remedial action to this problem by advocating improvements in the process of institutionalisation or by making more explicit the objectives of organisational activity.⁽⁸⁾

(7) D. Silverman "Formal Organisations or Industrial Sociology: Towards a Social Action Analysis of Organisations". Sociology Vol.2 No.2 May, 1968 pp.221-38.

(8) On the application of functionalism to aspects of organisation theory, see T. Parsons "Suggestions for a Sociological Approach to the Theory of Organisations" Parts I and II Administrative Science Quarterly Vol.I June & Sept. 1956 pp.63-85 and pp.225-39 for a discussion of the process of organisational change. On the functionalist analysis of industrial relations systems, see Dunlop op.cit. On the concept of informal structure and social systems see N. Mouzelis "Organisation and Bureaucracy" Routledge, Kegan & Paul 1967, Chapter 5, p.101. On the process of co-optation, see P. Selznick "Foundations of the Theory of Organisation" American Sociological Review Vol.13 Feb. 1948 pp.25-35.

The distinctive features of the functional approach to organisational analysis derive from the fact that, because the organisation itself is selected as the unit of analysis, attention is focused upon problems at that level: problems of the organisation in relation to its environment; problems of organisational functioning and effectiveness. In keeping with this approach also the emphasis is upon the adaptability of the organisation in maintaining itself over time to meet specific needs and to achieve specific objectives. It is in keeping with this approach finally that where the internal reference of organisation is taken for analysis, the emphasis will be upon the interdependencies of the parts of the organisational system in subserving the functional requirements of the whole. Indeed in explaining the existence of social phenomena by reference to aspects of social structure, the approach is characterised by an emphasis upon the necessary constraints placed upon social action by external or institutional exigencies. Because, however, recent variants of functionalism adopt a socially harmonious view of the organisation, imputing to it the existence of unified goals, such constraints are seen as being both technically and socially acceptable.

An alternative interpretation of organisations, however, is based upon the concept of "functional autonomy" as developed by Gouldner⁽⁹⁾. He writes:

"Organisation not only serves to link, control and interrelate parts but also functions to separate them and to maintain and protect their functional autonomy. Organisation is seen then as shaped by a conflict, particularly by the tensions between centripetal and centrifugal pressures, as limiting control over the parts as well as imposing it, as establishing a balance between their dependence and independence, and as separating as well as connecting their parts." (Our italics)

(9) A.W. Gouldner "Reciprocity and Autonomy in Functional Theory".

In "Symposium on Sociological Theory" ed. Gross. Row, Peterson and Co. 1959. pp.241-270.

Van Doorn⁽¹⁰⁾ has invoked this concept in a recent discussion of the interrelationship between patterns of organisation and patterns of conflict. He writes:

"Regarded in this light, the organisation is seen to consist of a combination of processes: the integration of the parts in the total system and, at the same time, the separation of the parts to protect their relative independence of the system."⁽¹¹⁾ (Our italics)

It will be noted that, in this approach, the organisation remains defined as a social system. The emphasis here, however, is upon the analysis of the business enterprise as a social system comprising relatively autonomous sub-systems where, as Van Doorn notes:

"Bargaining will be renewed from time to time, so enabling the distribution of resources to be adapted to the changed power relations between the parts of the system."⁽¹²⁾

The approach is utilised by Van Doorn for the analysis of industrial organisations. Taking the model of the coalition in political theory, industrial organisations are seen to depend upon a process of institutionalisation which

".....never ends in a fully-integrated and interdependent system, going no further than semi-permanent arrangements"⁽¹³⁾

Because the system is imperfectly integrated, and because the process of bargaining represents the typical mode of interrelating relatively autonomous sub-systems such as management and labour organisations, the power which each sub-system can bring to bear upon other contenders for the distribution of resources becomes an important factor for analysis. Moreover, the

(10) J.A.A. Van Doorn "Conflict in Formal Organisations" Ch.7

"Conflict in Society" ed. A. de Reuck & J. Knight, Churchill 1966 pp. 111-132.

(11) Ibid p.116

(12) Ibid p.118

(13) Ibid p.118

extent to which such a model facilitates the development of conflict as a rational method for maximising the opportunities of one sub-system at the expense of another without permanently disrupting the organisation becomes a problem for investigation. Indeed the possibility of the development of criss-crossing patterns of conflict between sub-groups which prevent the development of a major dichotomy between two key contenders for power is a particularly important factor suggested by the adoption of this frame of reference in any consideration of what contributes to the overall stability of the system.

It will be noted, however, that Van Doorn's use of the concept of functional autonomy fails to make an adequate distinction between "autonomy" as an aspect of systems as opposed to social integration. Quite clearly the emphasis in his work is upon the means of integrating relatively autonomous groups (i.e. trade union organisations) within the social organisation of the enterprise. What is required is some consideration of the ways in which this concept can be applied to the analysis of systems integration. Consequently it is necessary to suggest that if industrial organisational systems are simultaneously shaped by both unifying and diversifying influences, we need to specify the interrelationships between the parts of such systems. What constitutes the "parts" in this context is an analytical exercise; for our purposes we can delimit such functionally autonomous dimensions as the division of labour, the system of control, the type of technology, as well as the economic, legal and social environments in which industrial organisations are located. Inherent in this approach is the notion that the attainment of optimum conditions in any one of these dimensions may not produce optimum conditions in the total system. It follows also that whilst employers and employees possess the capability of mutually defining the profiles of social organisation in their enterprises in important respects, the overall effectiveness of these social arrangements

depends also upon their compatibility with the environmental and internal demands of the organisation as a technical and economic system. In the last analysis it might well be that an effective pattern of social organisation, evaluated in terms of the social uses of human resources, was inefficient in terms of its inability to meet the business and technical objectives of the enterprise. For these reasons the analysis of stability in the organisation must take separate account of factors independently contributing to the development of systems and social integration. The possible deficiencies created by a failure to do so are illustrated in our view in the approach of Van Doorn.

With regard then to current developments in organisational analysis, a case can be argued at this level for the modification of "open systems" analysis, identified with functionalist theory, in ways which permit the integration of perspectives derived from the concept of "functional autonomy". Such concepts facilitate the analysis of a phenomenon crucial in our enquiry: the ways in which unifying and diversifying influences co-exist within industrial organisations. At the level of the organisation, therefore, we seek a frame of reference which, by permitting some assessment of the effects of environment upon structure, together with an assessment of the nature of the functional imperatives which industrial organisations must meet in order to survive, requires some modification of functionalist theory as it is currently used in Industrial Sociology.

(b) SOCIAL INTEGRATION

The second problem concerns the integration of social action within organisational structures. This area of investigation is extensive within Industrial Sociology. It is one which has been identified with a variety of distinctive approaches, all of which can be located within three major theoretical traditions and which, for our purposes, can be

viewed as contending frameworks of analysis. These separate traditions are concerned with the analysis of consensus, conflict and social action theories.

(i) Consensus and Conflict: towards a Theory of Co-operation

The first of these traditions is related again to what has been called "consensus" theory in current sociology. It is a tradition which itself embraces a variety of approaches, but one which, in very general terms, identifies consensus with political democracy, as opposed to the classical organisational model of "authoritarian-bureaucracy". In connection with this point, Davis claims that:

"It would be hard to identify any major figure in the field of American or British studies who failed to draw attention to the advantages of more democratic structural arrangements and modus operandi by organisations faced with the task of maintaining their internal systems, co-ordinating human activities and adapting to a shifting external environment."⁽¹⁴⁾

Democratisation of structure, it is claimed, enhances identification, collaboration and consensus, supportive relationships and patterns of reciprocal influence. The work of McGregor, Argyris, Lickert, Gouldner and Bennis are cited by Davis as the principal contributors in this field, but in commenting on the sources of the approach, he mentions especially the contributions of Elton Mayo and other Human Relations theorists, together with the contributions of such social psychologists as Lewin, Lippitt, White, Coch and French. Such writers, Davis argues, are concerned with clarifying the structural changes involved in reconciling individual and organisational goals through processes of collaboration-consensus as opposed to those of collaboration-compromise.

(14) B. Davis "Organisational Democracy" Journal of Management Studies

If the approach is distinguished by a desire to see some reduction in the "specificity of role prescription" by increasing the scope for self-actualisation and employee determination⁽¹⁵⁾, it is one equally identifiable for its concern with pointing up the social bases of solidarity between management and workers and the institutional requirements for stability in industrial organisations, at the expense of a similar consideration of the power-structure of the firm and the existence of divergent and conflicting values of contending groups within such organisations.

Modern consensus theory, therefore, is an amalgam of two central and complementary schools of thought, reflecting in part the perspectives of general and normative functionalism, and in part the perspectives of consensual-democratic theory. Functionalist theory emphasises the relative effectiveness of system properties in meeting systems requisites: that is, the integrative aspects of social structures. It stresses the institutional determinants of order and stability in societies. Consensual-democratic theory stresses, in different ways, the same preoccupation with the nature and conditions of solidarity among actors in organisational systems, offering its own palliative for the maladies of industrial life. Jessie Barnard, for example, writing of the Human Relations School and its philosophy, summarises its position to be:

"If good human relations can be established by applying proper principles of organisation, then conflict - in the "tension" sense - will be done away with. It is not a matter of one class profiting at the expense of another; it is rather a matter of one class paying an exorbitant price in terms of frustration for ignorance on the part of the other."⁽¹⁶⁾

(15) D.J. Hickson "Convergence in Organisational Theory" Administrative Science Quarterly Vol.11, No.2 September, 1966. pp.224-237.

(16) J. Barnard et al. "The Nature of Conflict". International Sociological Association, Paris UNESCO 1957 see p.78.

The second of these traditions is related to what is termed "conflict" theory in current sociology. In this approach, one located in the classical tradition of Hobbes and Marx, conflict situations are intrinsic in, and organic to, social structure: the central element of social organisation is coercion. As Dahrendorf puts it:

".....coherence and order in society are founded upon force and constraint, on the domination of some and the subjection of others."⁽¹⁷⁾

Conflict is exhibited inevitably between the superordinated and subordinated, according to Dahrendorf, since integration itself is established by the ability of the superior group to impose its demands upon those who wield less power. To Marx, and later economic determinists, the inequitable distribution of scarce resources and the distribution of power determined by capitalist institutions are the primary causes of social conflict in the industrial society which exploits its workers because of the power of a given group to expropriate surplus value. As Stone observes:

".....we can separate three basic aspects of Marxian thought. The first is the conclusion that conflict is inevitable. The second is that economic interests are the determinants of human action. The third conclusion is that conflict flows from the distribution of power.....It is a concern with this problem, the effects of power distribution, that constitutes the intellectual legacy from Marxian theory uniting the Conflict of Interest school and giving rise to a point of view or framework for the study of industry."⁽¹⁸⁾

(17) R. Dahrendorf "Class and Class Conflict in Industrial Society"

Routledge 1959, p.157.

(18) R.C. Stone, op.cit. p. 119.

Nowhere has this type of approach received better treatment in recent years than in the work of Baldamus⁽¹⁹⁾. In his conflict frame of reference, it is assumed that the source of contradiction between management and worker lies in the nature of the employment contract itself, in the regulation by managerial controls of the relation between effort and earnings. A key problem in this process is the difficulty of controlling the wage-earner's effort to work in spite of the existence of stability and intensity controls, such as supervision and piece-work earnings. Thus the existence of social factors underpinning the will to work produces a standardisation of effort, so that informal definitions of "good" jobs are institutionally defined and determinant of the level of effort to be expended for a given wage increment. Under stable conditions these standardised expectations influence the effectiveness of managerial controls. Under changing conditions, however, these effort values break down because changes in wages and in effort expectations need not move in parallel but in opposition: this constitutes the condition of wage-effort disparity.

In a striking passage, Baldamus states:

"A moment's reflection will show that we have now located the very centre of industrial conflict. As wages are costs to the firm, and the deprivations inherent in effort mean "costs" to the employee, the interests of management and wage earners are diametrically opposed in terms of the disparity process: a relative lowering of effort value is an advantage to management and a disadvantage to the workers, for it implies that effort intensity per unit of wages is increased. We reach the conclusion that not every changing situation is fraught with conflict, but only those which involve wage disparity. It should also be evident that any shift towards disparity

(19) W. Baldamus "Efficiency and Effort" - An Analysis of Industrial

amounts to a redistribution of the shares of the product between employer and worker in favour of the employer."⁽²⁰⁾

Clearly for Baldamus the condition of wage disparity represents the dominant goal of management, whilst the condition of wage parity represents the goal of the labour force. It is an approach which emphasises the inevitability of industrial conflict, and the essential rationality of conflict under certain conditions. Baldamus points out the probability that if the desires of the parties are more or less unlimited whilst the means of satisfaction are limited, the question of distribution, of who gets what, and when and how, is problematical and potentially conflictful.

It is an approach, however, which is representative of much recent work in the "conflict" tradition in that it assumes the supply of income (and power) in industrial organisations to be a scarce resource, a constant quantity which is obtainable by one party only at the expense of another. In this sense the distribution of incomes and power is considered in terms of a zero-sum model of the firm. This model has been the subject of criticism, notably by Lammers⁽²¹⁾ drawing upon the recent work of Likert and Tannenbaum⁽²²⁾. Lammers' approach is to regard distributable income and power not as fixed, but as potentially growing quantities and the enterprise as a potentially expanding system wherein the uses of power at the disposal of key interacting groups may be increasingly directed towards the solution of problems in mutually rewarding ways. By treating the income of an enterprise as a growing quantity, wage increases may stimulate labour productivity and/or purchasing power and thus raise the level of income of the enterprise; by treating power as a growing quantity in ways which permit wage-earners to participate in decision-making, the joint power

(20) Ibid. p.105

(21) C.J. Lammers "Power and Participation in Decision-making in Formal Organisations" op.cit.

(22) Lammers refers especially to R.Likert "New Patterns of Management" McGraw Hill 1961 and C.G.Smith & A.S.Tannenbaum "Organisational Control Structure: a Comparative Analysis" Human Relations XVI 1963 pp.229-316.

of both management and labour may be increased. The effect of this is to suggest ways in which potential conflicts of interest are moderated by the mutual interest management and labour share in increasing the total amounts of power and income in their organisations. As Lammers puts it:

"For one thing, a rapidly expanding economy seems both in the United States and in western Europe to have been such a precondition for labour and management to discover their joint power. Perhaps, in general, a high rate of social change in society at large may foster organisational parties' awareness of the fact that joint efforts prove beneficial to all".⁽²³⁾

Certainly one may point to the emergence of plant "productivity-bargaining" schemes as possible examples of the means by which joint power might be extended. Such forms of bargaining not only secure the readier acceptance by workers of the need for change, but by raising the level of involvement of workers in the policies of the firm, tend to produce a more responsible and a more efficient management. More responsible in the sense that productivity bargaining can involve the extension of bilateral rulemaking by management and labour to new areas; more efficient in that both parties benefit by the changes in practice and by the increased productivity. Some writers believe that productivity bargaining may well constitute an addition to the forces reducing authoritarian management and promoting the growth of industrial democracy.⁽²⁴⁾

With these qualifications in mind, it remains the case that the dominant perspectives of conflict theory assume a priori the industrial enterprise as a conflict situation in which compromise via a process of bargaining may be achieved. Frequently such an argument is levelled

(23) C.J. Lammers op.cit.

(24) See for example N. Ross "Workshop Bargaining: a new approach" Fabian Tract 366, 1966 and N. Stettner "Productivity Bargaining and Industrial Change". Pergamon Press, 1969, especially ch.8, pp.147-166.

against the goal-consensus models of the normative functionalists: models which assume either the primacy of an organisation's orientation to the attainment of a specific goal⁽²⁵⁾ or which define organisations as co-operative systems or adaptive social structures, made up of interacting individuals and groups.⁽²⁶⁾

Such explanations, which subordinate the ends pursued by actors in a social system to the overall goals of the system, and which seek to demonstrate that the goals of the organisation are logically distinct from the goals of any one group, are typically rejected by the conflict theorist. Rex, for example, argues that the process of social interaction can be analysed in terms of three categories. The first category describes a stable pattern of interaction. Here there is an awareness by actor A that B's behaviour is conditioned by the same norms as apply to himself. The second defines an anomic pattern of interaction where norms are imperfectly understood, and where instability occurs through ignorance. The final category describes a conflicting pattern of interaction where A violates the expectations of B, and where the possession of power by one actor is directed towards the compliance of the other. Such conflict situations arise in the resolution of two central problems: the problem of economic order and the problem of political order. Thus societies are faced with the problem of both the allocation of scarce resources and property, and with legitimising the use of power in support of certain actions. For Rex, the process of interaction is more likely to create conflict than value consensus. He writes:

"If there is a conflict of ends the behaviour of actors towards one another may not be determined by shared norms but by the success which each has in compelling the other to act in accordance with his

(25) T. Parsons "Suggestions for a Sociological Approach to the Theory of Organisations" op.cit.

(26) P. Selznick "Foundations of the Theory of Organisation" American Sociological Review Vol.13, Feb.1948, pp.23-25.

own interests. Power then becomes a crucial variable in the study of social systems."⁽²⁷⁾

Given the possibility that societies are ordered and changed not only in terms of conflicts over means, but also in terms of conflicts over ends, Rex asserts that only a conflict model is capable of adequately explaining the reality of society where, ultimately, the persistence of the normative system indicates an underlying persistence of conflicting interests.

The same insistence on the ubiquity of conflict is found in the work of Dahrendorf whose conflict model implies the total rejection of the functionalist approach. For Dahrendorf, social change is explained by the existence of conflict between groups. Society itself is organised solely on the basis of coercion, so that unity and coherence is the result of constraint. The notion of value consensus is impossible because social classes exist because of the domination of one group and the subjugation of another. The effect of cohesion is to institutionalise class conflict into group conflict within the industrial relations system.⁽²⁸⁾

Reduced to its simplest terms, then, the conflict model rests upon the assumption that unity and coherence in social systems is based upon the existence of constraint and coercion. This approach may be criticised as an over-simplification. Indeed, as Cohen⁽²⁹⁾ suggests, the possibility of developing models which contain some of the predominant characteristics of the "integration" or "consensus" model on the one hand and some of those of the "conflict" model seems to have been neglected by such writers as Dahrendorf, Rex and Lockwood. For:

(27) J. Rex "Key Problems in Sociological Theory". Routledge 1961 p.112

On this point, see also D. Lockwood "Some Remarks on the Social System" British Journal of Sociology Vol.7, No.2, 1956.

(28) R. Dahrendorf op.cit.

(29) P.S. Cohen "Modern Social Theory" Heinemann 1968 pp. 166-172.

"Consensus does not necessarily mean persistence as opposed to change: there may be consensus on the direction and forms of change; while a lack of consensus, or a marked expression of sectional interests may produce an impasse which inhibits planned change. Similarly a recognition of legitimate authority does not necessarily mean a lack of change; while the use of coercive authority may inhibit or slow down the process of change. Conflict may be compatible with functional integration; and solidarity may be compatible with malintegration....."(30)

What seems to be required, if Cohen's argument is to be accepted, is a model which demonstrates the simultaneous existence of conflicting and common interests, and an approach which combines both the processes of integration and differentiation, and the elements of co-operation, conflict and consensus within the same explanatory frame of reference. As Mouzelis puts it:

"Of course these two ways of looking at organisations are neither contradictory nor clearly distinct in actual writings. If for expository reasons we have contrasted Parson's highly abstract and harmonious image of the organisation with Dalton's more concrete and conflict-stricken one, it is obvious that these two views refer to complementary aspects of an organisation.....It is also evident that a general theory which could account equally well for both the integrative and the conflict aspect of social systems is one of the major requirements in the study of organisations and of sociology in general."(31)

(30) Ibid. p.171.

(31) N. Mouzelis op.cit. p.164.

The view taken here is that neither the consensus nor the conflict model alone adequately describes the reality of social life, for the characteristics which they separately define are not mutually exclusive, but may coexist in tension within the same social system. Whilst it is true that the history of conflict and consensus theory has been a dialogue between exclusive frames of reference seeking to explain the same phenomenon - human co-operation, it has been the extreme situations of total harmony and total conflict which have been most illuminated in the literature. The situation which we would regard as more typical and which occupies a mid-point between these two extremes has received less attention: this is the necessary process of co-operation between management and labour in industrial organisations.

The kind of model required therefore is one which defines the nature of systems and social integration and diversification in organisations. We have already suggested that, at the first level of systems integration, functional explanations of "open" systems analysis require amplification along the lines suggested by the concept of "functional autonomy" as the basis for any discussion of systems integration. At the complementary level of analysis of social integration within such systems we argue that a theory of co-operation is required to integrate functionalist and conflict perspectives of social behaviour in industrial organisations. What are the dimensions of such a theory?

One approach to conceptualising the nature of co-operation as the characteristic process of management-union relationships is by examining the interrelationship between power and the performance of functions in industrial organisations, where:

"The action counterpart of functional interdependence is the power relationship between people or groups caught up in some system of interdependence."⁽³²⁾

(32) R. Dubin "Power and Union-Management Relations" Administrative Science Quarterly Vol.2 June 1957 pp. 60-81.

Power relations develop, as Dubin indicates, over the performance of functions, so that conflict is a characteristic feature of power relations. The actors involved in the performance of functions recognise their interdependence, but need not agree upon its nature; therefore the control of functions establishing interdependence does not rest upon consensus between the parties concerned, but upon the outcomes of a bargaining process and compromise reflecting the relative power positions of these parties.

Thus whilst the determination of functions is inherently conflictful and involves a power contest, this process inevitably involves the institutionalisation of power relations between management and labour. For:

"As each power contest is resolved, the resultant agreement is a form of consensus between the parties. Thus lack of consensus leading to conflict is converted into specific consensus on given issues by the agreements reached through collective bargaining."⁽³³⁾

In this sense co-operation is solidaristic in that the collective bargaining system provides an integrating framework for the accommodation of conflicting interests. At the same time we can point in other ways to the pluralistic nature of co-operation in industrial organisations by the fact that collective bargaining, as the institutional manifestation of a social system whose parts possess some degree of autonomy, depends for its existence upon the maintenance of differences of interests.

Moreover, Dubin points out a mode of analysing the changing aspects of co-operation when he suggests that the institutionalisation of power relationships implies the standardisation of increasing areas of the employment relationship so that these areas become mutually defined by the parties concerned. But this process is unlikely to end in consensus. He sees a dialectical process at work whereby:

(33) R. Dubin op.cit. p.62.

"At the same time that institutionalisation is taking place.....new areas of conflict are opening up.....From this standpoint it then becomes clear that every union-management relationship is always characterised by the simultaneous presence of conflict and cooperation. Where emphasis is placed upon the institutionalisation of the relationship, cooperation tends to overbalance the elements of conflict. Where new issues are opening up in collective bargaining, the elements of conflict predominate."⁽³⁴⁾

Dubin's illustration of the interrelationship between power and functional relations suggests an initial premise of a theory of cooperation: that the interaction between employers and employees is programmed on the basis that both parties share a common interest in the survival of the organisation, and that "institutionalised cooperation" - cooperation in terms of jointly defined rules - exists to permit the realisation of common interests and to resolve, albeit temporarily, issues arising from conflicting interests.⁽³⁵⁾ In this sense the enterprise is held to encompass relations between employers and employees characterised by both conflicting and common interests. Cooperation may result, therefore, either from the situation where employers and employees pursue divergent goals but compromise by making mutual adjustments to obtain the best possible exchange of contributions within the constraints imposed by the other party; or from the situation

(34) Ibid. p.80.

(35) On this point, see E. Rhenman "Industrial Democracy and Industrial Management" Tavistock, 1968 p.36. Rhenman's theory of conflict is based upon the belief that: "situations characterised purely by conflict very rarely occurs. Much more usual is some kind of combination of conflict and a need to cooperate: one party's chances of achieving his goals depend partly on the ability to win over his opponent and partly on the ability to cooperate with him".

where employers and employees share the same interests and define a common strategy to attain similar goals. This last possibility, however, would allow for the contingency that in the pursuit of a common goal, employers and employees may conflict over the means used to achieve this end, in which case some form of accommodation will be sought within the constraints imposed by the power available to each party and by the constraints imposed upon both parties by the environmental context of the enterprise. Given this premise, it follows that the analysis of union-management relations, or employer-employee relations, should be concerned with the investigation of both their unifying and diversifying ingredients rather than with their characterisation in terms of such polar concepts as conflict or consensus.

Moreover, the investigation of the balance of interests between employers and employed will have regard both to the structural and to the normative conditions which permit cooperation to exist in situations which typically produce areas of agreement and disagreement between these groups. In this sense the pattern of cooperation will be both a function of imperative conditions imposed by the situation in which behaviour takes place and by the normative conditions jointly determined by reference to the respective power positions of both groups.

A third premise of a theory of cooperation would refer to the relationship between the distribution of power and the mode of cooperation in industrial enterprises, recognising that the style of cooperation varies with the pattern of power distribution between the two groups. Consequently industrial organisations which are typified by wide disparities in power between employers and employed will differ in their modes of cooperation from organisations where the disparity of power is relatively low. In the latter the mode of cooperation governing the organisation of jobs, work and rewards is seen as a process, and apparently an expanding process, of joint

regulation and administration by the two groups. In this context the devolution of responsibility to employees involved in the process of joint decision-making increases as the power disparity decreases, and itself accelerates the apparent movement towards an equalisation of power.

Subsequently it can be argued that in industrial organisations where the joint power of the two groups is either neutralised or jointly expanding, the character of collective bargaining as the central process of cooperation will change. Further, the factors making for a redistribution of power may be external to the organisation. Chamberlain has noted that under conditions of rapid industrial change:

".....the new corporate emphasis on maneuverability is fundamentally incompatible with the union's emphasis on maintaining work practices, customs and job-rights."

for:

"by conflicting with the company's ability to adapt promptly and effectively to change, it jeopardizes the profitability and even survival of the very institution on which employees must rely for job income security."

Subsequently:

"If traditional collective bargaining methods are inadequate in the modern economy.....If management wants flexibility in adapting to changes in its plans.....it must give the union a chance to be heard on all decisions affecting the interests of the workers on a continuing basis."

and:

".....here is where the jointness of the problem returns, the need for a new configuration to the union-management relationship: instead of a term contract, continuing joint consultation and planning in the field of manpower. Instead of a power struggle over rules and status

negotiation over the way in which anticipated changes can be made to open up over new career opportunities."⁽³⁶⁾

It follows, finally, that the fourth premise of a theory of cooperation, having defined the nature and modes of cooperation in industrial organisations, must be to predict the likely course of cooperation under conditions of change. In this context, Chamberlain's definition of the modern view of collective bargaining as an institution not only for the regulation of labour markets but also for the regulation of labour management can be considered. Under conditions of economic expansion, for example, and under conditions of comparative labour scarcity, it can be argued that these provide the preconditions for labour and management to discover a common interest in generating their joint power. And it is within the ambit of what is now termed "productivity bargaining" at plant level that a new locus of cooperation may be located. Here issues of labour utilisation and deployment, issues of central interest to both groups, become negotiable in ways which permit work groups to have a direct involvement in the regulation of their work and by:

"so modifying work rules and organisation that the divergent work interests of the various groups involved, including management, are reconciled at a higher level of practical cooperation than before."⁽³⁷⁾

(36) N. W. Chamberlain "Unions and the Managerial Process" in C. R. Walker "Technology, Industry and Man" McGraw-Hill, 1968, pp.260-274.

(37) A. Fox "Labour Utilisation and Industrial Relations" in D. Pym ed. "Industrial Society: Social Sciences in Management" pp. 41-64 see especially p.58.

The development of a theory of cooperation, therefore, seems appropriate as the basis of a more balanced approach to the analysis of social integration. It takes issue with those perspectives which characterise employment purely as a conflict situation where cooperation is occasionally achieved, or as an organic situation which occasionally becomes disrupted. It emphasises the process of accommodation as the typical process of interaction in any complex social system characterised by the requirement for interdependency among parts possessing also some degree of functional autonomy, and by the requirement for some degree of normative consensus among its interacting groups who nevertheless interrelate upon the basis of opposed interests. The conditions under which groups cooperate and the conditions which produce changes in the pattern of cooperation over time, are, therefore, the central problems of the theory.

(ii). Social Action Theory

We may now return to the main discussion of the three major theoretical approaches concerned with the integration of social action within industrial organisations. So far this discussion has concerned itself with the perspectives of "consensus" and "conflict" theories, and in the case of the latter we have suggested that a theory of cooperation might provide the basis for a more balanced view of the nature of social integration in industrial enterprises. There is, however, a third theoretical perspective to be considered: the action frame of reference.

Derived from the work of Max Weber, it is an approach which:
"attempts the interpretive understanding of social action in order thereby to arrive at a causal explanation of its course and effects. In "action" is included all human behaviour when and in so far as the acting individual attaches a subjective meaning to it."

but:

"Action is social in so far as, by virtue of the subjective meaning attached to it by the acting individual (or individuals), it takes account of the behaviour of others and is thereby oriented in its course."(38)

In its application to Industrial Sociology, for example, Goldthorpe claims that industrial research should commence at the level where:

".....actors' own definitions of the situations in which they are engaged are taken as an initial basis for the explanation of their social behaviour and relationships. In contrast with approaches which begin with some general and normative psychology (or philosophy) of individual needs in work, or with some conception of the "needs" of the efficiently operating enterprise, an action frame of reference would direct attention systematically to the variety of meanings which work may come to have for industrial employees."(39)

In this sense the value of the approach is held to be defined by its ability to indicate the sources of variations in patterns of industrial behaviour despite similarities in the socio-technical system of the workplace. As such, the action frame of reference is invoked as a reaction to the determinism of the "technological implications" approach in Industrial Sociology which assumes an association between technological and organisational processes and thereby a causal relationship between the constraints of work roles and the behaviour of individuals.

In wider context, social action analysis has been advocated by Silverman as an alternative to currently fashionable theories of organisation derived from Structural-Functional and Human Relations theory. For Silverman the emergence of the study of "Formal Organisations" in recent

(38) M. Weber "The Theory of Social and Economic Organisation" Ed. Talcott Parsons: Free Press 1964, p.88.

(39) J.H. Goldthorpe "The Affluent Worker: Industrial Attitudes and Behaviour" Cambridge 1968, p.184.

years has been handicapped by the implicit bias of functionalism to emphasise a type of sociological explanation which shows how social actions not only result from certain structural conditions, but how they contribute to their maintenance and, particularly, to the solidarity of the social group as a whole.⁽⁴⁰⁾ Typically as we saw earlier such structural-functional explanations require the conceptualisation of the organisation as a system, and frequently utilise the organic analogy for purposes of illustrating the structure and processes of social organisation. Here organisations are defined as open systems engaged in processes of energy exchange with, and through, an external environment. The relationship between the external and internal references of the organisation is normally considered in terms of "goals" imputed to the organisation (or "needs", or "imperatives"), so that analysis focusses upon both the transactions with the environment which function to maintain the system in a "steady state" and upon the changes in the internal structure of the system which may be necessary to maintain it in a constant relationship with its environment. In these ways the effectiveness and adaptiveness of the system is evaluated by its appropriateness for the ends which are imputed to the system. It is within this context that judgements of functionality are made concerning the integration of system elements and their utility in subserving the ends of the system.

Various criticisms have been raised against this kind of sociological explanation. The first concerns the ideological basis of much theorisation which is based upon the use of a systems approach. The imputation of ends and needs à priori to organisations, and their consequent reification, leads to the unwarranted assumption of a harmonious arrangement of parts of the system to ensure that such ends and needs are effectively met. Whilst some systems theorists emphasise the differences which exist between biological

(40) D. Silverman op.cit.

and social systems, others typify organisational functioning as an impersonal process and impute to the enterprise a unified set of goals which are somehow established and maintained over and above the objectives of its members. For example, Selznick argues that:

"Organisational behaviour must be analysed in terms of organisational response to organisational need: needs are experienced and a response made to them by the system itself - the organic character of the formal organisation must be recognised - organisations reach decisions, take action and make adjustments."⁽⁴¹⁾

Where the problem of individual motivation is raised, it is resolved in ways which recognise the adaptiveness of human action to the requirements of the social system in which it is located.

Thus, for example, within the context of functionalist theory, it was left for the normative functionalists, such as Parsons, to recognise that the consequences of functions cannot be adaptive without reference to some concept of motivation. For Parsons such a concept is necessary to explain the motives of individuals in terms of the requirements of social systems, by emphasising the ways in which the aims of individuals articulate with the norms of society. In this approach the maintenance of order depends upon the compatibility of social actions within the existing normative standards of society. But whilst recognising the necessity of introducing value into sociological explanation, and the distinctive rôle of Sociology as a discipline to make the function of values in social life explicit, Parsons takes as his paradigm case a society with consensus of commitment to existing social values, and gives undue emphasis in his analysis to the determinants of social order and predictable patterns of behaviour. To the extent that he gives primary emphasis to the role of values as integrative elements in systems functioning,

(41) P. Selznick "TVA and the Grass Roots" Berkeley California U.P. 1949

the question of how such values are maintained in existence through the exercise of power and coercion by dominant groups is ignored.

It is in these ways, therefore, that the functionalist concern with the treatment of organisations as goal-oriented systems, in which the ends of the system have primacy over the ends of individuals and groups, has been criticised by social action theorists. The fact that organisations exist with stable structures in spite of recurrent conflict over the nature of their goals is ignored; the fact that stable patterns of social interaction can exist between groups who do not share agreement upon what constitutes a common goal is not anticipated. It is to avoid the danger of reification implicit in this approach that the use of the action frame of reference has been advocated. In this respect the perspectives of conflict and social action theories are very similar.

The dimensions of the approach may be summarised briefly. In contrast to the organic model described above, the social action approach seeks to define organisational systems as relative to particular balances of interests pursued by individual or groups of participants, so that:

".....cooperation of these various parties in pursuit of an enterprise's official goals or "primary task" is conditional upon this arrangement satisfying their purposes better than any available alternative. In other words the permanent unity of constituent parts can by no means be taken for granted."⁽⁴²⁾

In this sense analysis commences at the level of human motivations and describes the state of an organisational system at any moment in time simply as the resultant of the ends pursued by different groups. Subsequently analysis focuses upon the independent consequences of the orientations to work of these groups, and the structural sources of these orientations

(42) J. Child "The Business Enterprise in Modern Industrial Society"

outside the organisation. Here the goals held by different groups or individuals are identified and the sources of these goals which structure the definitions held of work are identified by reference to the social characteristics of the actor(s) concerned. Analysis is then directed towards explaining the choice and efficacy of means selected by actors to achieve their objectives in the light of their knowledge of the situation and within the constraining or facilitating contexts of both their work and non-work milieux.

In general, the approach involves a redefinition of the concept of social role. At one level of analysis it is assumed that social interaction may generate conflicting as well as shared expectations between actors; at another level it emphasises the importance of considering the actor's self-concept of his role as an element of analysis. Analysis is thus directed in the first instance towards the goals which individuals say they pursue, and the extent to which these goals are compatible with those of other groups; in the second instance, analysis is directed towards an assessment of how much of the self-concept gets through into actual behaviour and how much is blocked or changed by the constraints of the structures which surround him.⁽⁴³⁾ In this formulation, "role" is seen to be the outcome of two variables; the actor's self-concept of (or orientation to) the role and the situational demands which "tone-down" the self-concept.

Thus the action frame of reference has been utilised in industrial research for a variety of purposes. First, as a critique of those theorists who have followed the "technological implications" approach by assuming a causal relationship between technology, organisation and the behaviour of

(43) For an account of this approach to the elements of role theory, see

employees - by assuming behaviour to be entirely role determined.

Goldthorpe writes:

".....little account has been taken of the orientations of workers towards their work or of their own definitions of work situations: or if these factors have been discussed then they have, for the most part, been treated as dependent variables - that is, as being shaped or conditioned by aspects of the work situation objectively considered."⁽⁴⁴⁾

It has been utilised, secondly, to shed light upon the relationship between actor and his social environment, with particular reference to the consideration of non-work factors in explaining work behaviour. Thus Lockwood and Goldthorpe introduce the notion of the "privatised" worker to define an apparent movement towards the less class-conscious and more self-conscious employee. This process of the individualisation of the needs of workers is accounted for principally by reference to the increasing opportunities which exist outside the workplace for meaningful social experiences, and to changes in life chances and styles induced by the decline of solidaristic and traditional working class residential communities. In this sense the process of "privatisation", a style of life based upon family-centredness, conspicuous consumption and an evaluation of self in terms of impersonal pecuniary criteria is seen to operate most forcibly in distinctive community settings and with sufficient strength to structure a highly instrumental and calculative orientation to work.⁽⁴⁵⁾

(44) J. Goldthorpe "Orientation to work and industrial behaviour among assembly line operatives" Unpublished paper, 1965.

(45) D. Lockwood "Sources of Variation in Working Class Images of Society". Sociological Review Vol.14, 1966, pp.249-267.

It has been utilised, thirdly, to define the implications of distinctive orientations to work for the problem of control in industrial organisations. Thus Cunnison's investigation of a group of garment workers indicated that the quality of "militant individualism" which characterised their behaviour could be explained by reference to both work and non-work (community) variables; the particular pattern of control found in the shop, moreover, which involved an acceptance of managerial authority to define rules governing job and work, was explained by reference to the fact that:

"workers, managers and employers were connected by common membership in a number of different systems of social relations which were localised in the same area.....the systems overlapped so that persons were related to one another in a number of different activities and interests other than work."⁽⁴⁶⁾

Goldthorpe places a similar emphasis upon the relevance of non-work roles to actors' performance of work roles, and to the manner in which orientations to work appear to delineate acceptable methods of control of job and work. The "instrumental" orientation of the Luton car assembly worker, for example, was associated with a willingness to legitimise management's planning and controlling functions in exchange for a high and sustained economic pay-off.⁽⁴⁷⁾

Other writers make specific reference to this association. Ingham, for example, refers to the relative homogeneity of a labour force resulting from individual choices of employment in organisations of varying size, offering distinctive rewards by virtue of their size and structure. Following Etzioni⁽⁴⁸⁾, and utilising his theory of compliance, Ingham finds

(46) S. Cunnison "Wages and Work Allocation" Tavistock, 1966 p.33

(47) J. Goldthorpe op.cit., 1968.

(48) A. Etzioni "The Comparative Analysis of Complex Organisations"

that the degree of congruence in the compliance structure of the enterprise is a function both of organisational size and individual orientation to work where the effectiveness of the compliance structure is measured by the level of individual attachment to the enterprise.⁽⁴⁹⁾ Stinchcombe has noted also that craft workers develop expectations for greater control over work and independence from management. Such expectations, acquired during the period of socialization into the occupation, imply a high degree of involvement in work, and, through the union, the demand to exercise considerable control over the workplace⁽⁵⁰⁾. Cannon comments upon the instance of the craft compositor in this context. Here the occupational ideology of the craft informs the individual orientation of the compositor, inducing conformity and sustaining the allegiance to radical working class values; in this sense the forces maintaining the social consciousness of the individual also function to maintain a distinctive system of job and work control where the scope for participation in workplace decision-making is higher than in many other industrial situations.⁽⁵¹⁾

In general terms, therefore, the social action framework is advocated by those who seek to counter what they see as the deficiencies of recent systems theory - the conceptualisation of the organisation as a goal specific system, and the analysis of work roles purely in terms of the exigencies of the work situation. It follows from the description of the framework above that organisational structures are not here defined in terms of their relations with specific organisational goals, as the embodiments of an organisational purpose. Rules in an organisation may

(49) G. Ingham "Organisational Size, Orientation to Work and Industrial Behaviour" *Sociology*, Vol. No.3, 1967. pp.239-258.

(50) A. Stinchcombe "Bureaucratic and Craft Administration of Production" *Administrative Science Quarterly* Vol.4, 1959, pp.168-87.

(51) I.C. Cannon "Ideology and Occupational Community, a study of compositors." *Sociology* Vol.1, No.1, 1967, pp.165-85.

subserve other requirements than the implementation of a "goal".

Regulations may derive not from the expression of any organisational purpose, but from the intervention of outside bodies, which, in some cases, might be interpreted as constraints upon the implementation of that purpose.⁽⁵²⁾ Albrow expresses the situation clearly when he writes:

"Certainly there is no need to view formal rules and authority as determined by their relation to a specific goal. After all, formalised rules and authority may develop in a society and there is no need to refer to an over-riding purpose to explain them. Usually sociologists attempt to explain such structures by reference to the demands of competing groups. There is no reason to think that organisational structure may not be interpreted in the same way."⁽⁵³⁾

It is in this sense that organisations are pluralist and conditional, and the organisational system in this context nothing more than:

".....the present outcomes of the ends sought by different groups and the actions which they have sought to pursue in the light of the means available to them."⁽⁵⁴⁾

And if organisation is nothing more than the product of human ends, the primary problem of the social action theorist must be to explain how the existing structure of the system facilitates or constrains the achievement of these ends, and how organisational systems change in response to the various pressures which groups of stakeholders in the enterprise bring to bear upon each other in the pursuit of their own purposes.

(52) See M. Albrow "The Study of Organisations - Objectivity or Bias?"

Penguin Social Sciences Survey, 1968, pp.146-167. See p.156.

(53) Ibid p.158.

(54) D. Silverman op.cit.p.234.

To the extent that action theorists emphasise the importance of actors' orientations to the work situation, the approach is generally seen then as providing a necessary corrective to the goal-oriented conceptualisations of organisations which we have described. Its relevance for such considerations as open systems analysis is apparant: in this context it provides an important supplement to functionalist, and, in particular, socio-technical systems approaches wherein attitudes and behaviour are largely role determined and where technology is held to determine the nature of work roles within certain limits.

It is unfortunate, therefore, that in the development of the social action frame of reference within Industrial Sociology, its advocates should have raised the concept of orientation to work in such ways as to suggest that the subjective experience of work situations was exclusively derived from structural constraints operating outside the workplace, thus minimising the possibility that features of the work situation might generate pressures independently upon actors - to facilitate or to prevent the realisation of their objectives. This criticism has been sustained, for example, by Brown and Brannen in their study of forces making for homogeneity and diversity among shipbuilding workers. Here it was shown that whilst the work situation of Tyneside shipyard workers contained such unifying features as the manufacture of a common product and shared employment experiences which, broadly, operated to reinforce the predominantly solidaristic orientation to work derived from membership of a working-class community, it also contained diversifying features, such as the occupational and wages structure, which functioned to produce and maintain conflict between the groups concerned. The important point to emerge from this investigation was that orientations to work may themselves be modified by the distinctive organisation of, in this case, a predominantly craft-based industry. In this way a much fuller account of the nature of workplace and community

interaction was obtained by the selection of an approach which emphasised the factors making for homogeneity and diversity between them.⁽⁵⁵⁾ A more overt criticism of the approach, however, has been formulated by Daniel who argues that a major weakness lies in the use of the concept of orientation to explain not only occupational choice but also:

"sources of gratification and deprivation in work, responses to different styles of supervision, relationships with other members of work groups determinants of performance, and evaluations of the employer, all this in spite of strong evidence to the effect that the factors that attract a person to a job are very different from those that determine his satisfactions, performance and behaviour on the job. These in turn are often very different from those that predispose him to leave the job.....Yet the type of measurement, development and application of orientation to work just described, completely ignores this and blithely generalises factors derived from job choice and attachment, projecting them onto the work situation."⁽⁵⁶⁾

Brown, Brannen and Daniel appear to reach similar conclusions from their respective studies of shipbuilders and oil refinery operators in the claim that orientation to work is an insufficient variable, used exclusively, to explain satisfactions and behaviour in the work situation. For the first two writers it was necessary to show how aspects of the occupational and wages structure induced inter-group conflict in such areas

(55) R.K. Brown and P. Brannen "Social Relations and Social Perspectives Amongst Shipbuilding workers - A Preliminary Statement" Part I and Part II, *Sociology* Vol.4 No.1, January 1970, pp.71-84 and *Sociology* Vol.4 No.2, May 1970, pp.197-211.

(56) W.W. Daniel "Industrial Behaviour and Orientation to Work - A Critique" *Journal of Management Studies* Vol.6 No.3 October 1969 pp.366-375, see p.367.

as demarcation between spheres of competence, a phenomenon difficult to reconcile with the predominantly solidaristic orientation to work of shipbuilders. For the last writer the contention of Goldthorpe et al that the car assembler's satisfactory relationship with his supervisor, (based upon the supervisor's non-interference in the direction of assembly-line operations) was the product of an instrumental orientation to work is rejected in favour of an alternative explanation in terms of the existence of a technologically determined role structure in this industry. Thus the desire to be "left alone" may be just as much the product of the technology of the industry as it is of factors outside the workplace. Because the role structure of this particular industry is frequently judged to permit little scope for discretion and to sustain supervisory relationships which are fundamentally coercive, Daniel argues that:

"In such a situation, where the structure of task and role relationships make any job-related contact punitive, he (the assembler) wants to be left alone."⁽⁵⁷⁾

What is being confused here, according to this writer are factors responsible for satisfaction with a job, with factors responsible for satisfaction in a job: the former is associated with sources of attachment to the job, the latter with sources of opportunities provided by the job for positive satisfaction at work through intrinsic interest. Whilst it may be true that the actor's initial attachment to the work situation may be prompted by cues deriving from the non-work situation, job satisfaction itself is largely a product of the structure of the working environment: the task and control structure of the organisation. Daniel found in his own research that:

"...it is pay, security and physical working conditions that attract people to the job. Alternatively it is the opportunity to use

mental ability and experience in problem resolution and learning that are the main sources of satisfaction in the job; while it is the lack of opportunities for advancement that predisposes those few who are not firmly attached to their jobs to leave."⁽⁵⁸⁾

The general conclusion to emerge from this brief discussion of social action theory is that whilst an understanding of the actor's imagery of work is crucial as a level of analysis in the investigation of social integration in industrial organisations, the available evidence suggests that both work~~ing~~ and non-work~~ing~~ variables operate to structure the nature of work experiences, and that these probably operate independently of each other. Moreover the range of internal cues may vary in each concrete case. Thus the effects of occupational structure and wage differentials⁽⁵⁹⁾, occupational ideology⁽⁶⁰⁾ and workplace reference groups⁽⁶¹⁾, technology⁽⁶²⁾ and industrial relations systems⁽⁶³⁾ have been isolated by various studies as significant influences upon behaviour in the workplace. These considerations alone indicate a need for a multivariate approach in seeking to explain industrial behaviour.

Ultimately, the point we wish to establish is that whilst the analysis of externally structured orientations to work may provide valuable evidence as to why employees approach work situations in distinctive ways, it remains the case that the organisation of work, and differences between plants and industries in this respect, will frequently function to diversify groups with similar orientations and even with similar skill levels in ways

(58) W.W. Daniel op.cit. p.367

(59) R.K. Brown and P. Brannen op.cit.

(60) I.C. Cannon op.cit.

(61) M.A. Smith "Process Technology and Powerlessness" British Journal of Sociology Vol.19 No.1 March 1968 pp. 76-88.

(62) W.W. Daniel op.cit.

(63) H.A.L. Turner op.cit.

which permit the development of a plurality of self-definitions and, in consequence, diverse patterns of behaviour. In this sense we should expect to find continuities and discontinuities between work and nonwork influences co-existing within the same workplace context and conditioning behaviour within it. Nevertheless the utility of social action analysis in the investigation of how participants define and construe their involvement in social systems, and the extent of their control over them, is of obvious importance. The opportunity to explore the nature of employees' self-definitions of work and the structural sources of these perspectives in their social environments form a central element of the analysis of social integration in industrial organisations and an essential part of the theory of cooperation outlined in the previous section.

2. CONCLUSION

At this point we may conclude the chapter by briefly restating our argument in the context of the preceding discussion. The attempt has been made to consider the adequacy of existing theoretical approaches to two key problems of central interest to industrial sociologists: the integration of the parts of organisations conceptualised as social systems and the integration of social action within such organisational systems. Our conclusion is that whilst these theories, taken together, provide an adequate range of conceptual tools for the analysis of such problems, the development within separate, and sometimes conflicting, intellectual traditions has magnified the exclusiveness of each approach at the expense of their focal concerns. It is our contention that analysis should be directed towards the objective of creating a more unified frame of reference for the investigation of problems of integration in industrial organisations, and not to the continuation of the arid exercise of justifying points of distinction between contending frameworks.

It should be clear from the preceding discussion that so far as the first problem of "systems" integration is concerned, the development of the concept of "functional autonomy" in its applications to systems theory would be fruitful and would permit a more realistic analysis of the unifying and diversifying factors influencing systems integration. Lockwood, for example, has argued that current conflict theory has been developed largely in response to the deficiencies of normative functionalism with its emphasis upon equilibrium analysis.⁽⁶⁴⁾

In consequence, it (conflict theory):

"is entirely confined to the problem of social integration. What is missing is the system integration focus of general functionalism which by contrast with normative functionalism, involves no prior commitment to the study of system stability."⁽⁶⁵⁾

Lockwood claims that the concept of functional autonomy provides a model of system integration which is particularly relevant to conflict theory whilst also providing a linkage between the analytically distinct though interrelated problems of system and social integration. (e.g. the division of labour (role structure), technology and system of control) The notion that the parts of a system are characterised by varying degrees of interdependence suggests that systems conflict arises through strains (or contradictions) between the key structural elements of the system. Because the organisation of these variables conditions the autonomy of the constituent groups participating in such systems, there is moreover a necessary linkage between the nature of system integration and the nature of social integration in industrial organisations. Lockwood's approach to the problem he describes is to consider in Marxist terms one pattern of functional instability which arises through a "lack of fit" between

(64) D. Lockwood "Social Integration and System Integration" Chapter 9
G.K. Zollschan & W. Hirsch "Explorations in Social Change"
pp.244-257 Routledge and Kegan Paul.

(65) D. Lockwood, Ibid p.249

the core institutional orders of a system and its material substructure. Problems of social integration develop in this context if groups with a vested interest in the maintenance of the system are unable to devise compensating mechanisms to counteract the dysfunctional tendencies he describes.

Whether Lockwood's argument is accepted or not, it is important to stress that organisations by definition consist of a combination of integrative and disintegrative processes, centripetal and centrifugal pressures, and that, in this context, we need to look at the various social, technical and economic dimensions of the enterprise as a system in order to specify the nature of interrelationships between them. Inherent in this approach is the notion that the attainment of optimum conditions in any one of these dimensions may not produce optimum conditions for the whole, and that where strains exist between such structural elements as the economic, organisational, budgetary and technical contexts of the workplace, these will have implications for the pattern of social interaction, since variations in the structure of constraints or rewards will influence the behaviour of individuals and groups. In this sense the investigation of the nature of system integration is crucial in the determination of the limiting factors upon social action at any particular point in time. The value of open systems analysis thus described lies first in defining the nature of interdependencies between the key structural dimensions of the organisation, and their adaptiveness to external change, and second, upon the manner in which these structural arrangements have consequences for the quality of individual work experience and group behaviour. At the same time the reaction of relatively autonomous work groups to these systems influences will be conditional; power and value considerations must be considered therefore in the determination of how the enterprise as a whole responds to the requirement for change.

The related problem of "social integration" in industrial organisations as we have seen can be approached also from a variety of theoretical standpoints. Basically we have been concerned to show that the orientations of consensus and conflict theories in this area are not necessarily exclusive. It has been suggested that a theory of cooperation which emphasises the multilateral character of work regulation and control provides the most realistic basis for the analysis of how functionally autonomous yet interrelated groups pursue their various interests in ways which typically ensure some continuity in the business of the enterprise. Attention was drawn to the existence of shared values governing the organisation of work and the processing of grievances, values which order the pursuit of separate, and sometimes conflicting interests. Clearly, the problem of power resources at the disposal of contending groups may determine in part the structure of values which are shared by all; nevertheless it has been suggested that a reconsideration of the nature of power relations as integral aspects of social relations between interdependent groups would permit the analysis of the conditions under which power becomes an expanding resource at the disposal of all groups engaged in the process of jointly controlling the organisation of work.

Finally we have sought to indicate that the analysis of the nature of social integration would be seriously incomplete without reference to the individual's ordering of wants in relation to the work situation: that is to the individual's self-image of his work situation. The significance of such considerations led to the inclusion of the social action frame of reference within our model for the purposes of differentiating between the reactions of groups to similar work roles as determined objectively by the same conditions. The limitations of the approach, used independently of systems considerations, were noted.

What seems to be required therefore is a model which articulates the three major points of reference we have isolated so far. First, a systems framework of the organisation defining the environmental and organisational and technical variables operating to delineate certain functional requirements which must somehow be met by all parties if the enterprise is to survive and be maintained. Second a social framework of the participant employee(s) defining the environmental, (including social class and community) and occupational variables operating to delineate individual orientations to the organisation and to show how established rules and practices of work may be changed by pressures from below. Third, and finally, a model of co-operation defining the nature, effects and direction of change of relations between relatively autonomous industrial groups, each with distinctive occupational or business interests, who are nevertheless interrelated within the social system of the organisation. These three major theoretical points of reference, and the interrelations between them are discussed in more detail in the next two chapters in the consideration of their application to one particular problem - that of social control in industrial organisations.

CHAPTER 2

ENTERPRISE AND ACTOR: THE CONTEXTUAL FRAMEWORK OF CONTROL

In the previous chapter a case was outlined for the systematization of theory in the two interrelated analytical areas of systems and social integration of organisations, where both problem areas were seen to have implications for the investigation of a central problem of industrial sociology: the nature of order and stability in industrial enterprises. In this chapter it is intended to develop the case for theoretical integration in more detail by outlining a contextual model for the analysis of one particular organisational process, that of control.

The selection of this particular process is important. If in fact the case for theoretical integration in Industrial Sociology rests upon the need to resolve current conceptual ambiguities in the analysis of order and conflict, stability and change, values and interests, system and actor-problems raised in the first chapter - then the selection of a process which illustrates the interrelationships between these elements is crucial. It is felt that the process of control in industrial organisations provides a suitable locus for the consideration of these various part-problems relating, as they do, to a wider and more general concern with the nature of integration in industrial organisations.

1. THE CONTEXT OF CONTROL: SYSTEM AND CONTROL

How can we define the nature of control in industrial organisations? Why is the process problematical? The answers to these questions depend, first, upon the establishment of a suitable contextual frame of reference in terms of which the process of control can be located and, second, upon the definition of key problems of control involving some consideration of the major analytical aspects of the process and their interrelationships. Taken together these constitute a sociological approach to a central problem of

industrial relations: who does what, when and how in work. Consideration of this problem involves the analysis of the control process within parameters determined by the nature of systems constraints operating at the level of the enterprise and social constraints operating at the level of actors within their occupational groups.

What do we mean by control? Reference to the literature on the meaning of control provides a variety of answers to this question. Initially, however, it is possible to suggest that the process may be investigated at the two levels of analysis outlined in the first chapter: the level of systems integration and the level of social integration within industrial organisations.

At the first level "control" refers to the system for directing and controlling the production task of the enterprise. Here the starting point for analysis is the task to which the organisation is committed and the relevance of the administrative mode of setting objectives, planning and executing policies and controlling activities for the achievement of the aims of the organisation.⁽¹⁾ In this context a "task analysis approach" is frequently utilised based upon either the open systems model of such normative functionalists as Parsons or upon the socio-technical systems approach of the Tavistock Institute of Human Relations.

Parsons discussed the concept of organisation in systematic terms, taking as his analytical point of reference, primacy or orientation to the attainment of a specific goal:

"An organisation is a system which, as the attainment of its goal, produces an identifiable something which can be utilised in some way by another system; that is, the output of the organisation is, for some other system, an input."

(1) T.K. Reeves and J. Woodward "The Study of Managerial Control" Chapter 3 "Industrial Organisation: Behaviour and Control" Ed. by J. Woodward, Oxford, 1970, pp.37-56.

and

"It is thus assumed that in the case of all organisations there is something analogous to a "market" for the output which constitutes the attainment of its goal."⁽²⁾

Attention is drawn, therefore, at the outset to the nature of the interaction between organisation and environment, to the adaptive function which the industrial organisation is held to perform and to the fact that the objectives of the enterprise are legitimised by reference to more generalised values of the wider society. Judgements concerning what constitutes a satisfactory level of goal attainment are made in terms of the adequacy of organisational adaptation to the situation in which it operates. Since goal attainment is so clearly defined by Parsons as a relation between a system and its external situation it is not surprising that his treatment of the control process reflects this primary concern with the adaptiveness of the system as a whole.

It follows that for Parsons an important usage of open systems analysis is found in the elucidation of the interrelationship between the value systems of the organisation and those of the environing society. In so doing he illuminates an important general area of relevance for the study of control: the effect of environmental controls upon organisational goal-attainment. Thus he proposes that the value systems of organisations should be seen as subvalue systems of higher-order organisations (especially the wider society), implying acceptance of its values and compatibility with them. Organisational values legitimise the goals of the organisation by emphasising the system's contribution to the functional requirements of the larger system. Indeed the institutionalisation of a value system which legitimises both the goal of

(2) Talcott Parsons "Suggestions for a Sociological Approach to the Theory of Organisations" Vol.1 Nos. I and II, Administrative Science Quarterly, 1956, pp.63-85: 225-239.

the organisation and the patterns by which it functions to achieve that goal is held to be an important condition for the generation of power - "the generalised capacity to mobilise resources in the interest of attainment of a system goal."

This approach, with its emphasis upon the identification of power with goal attainment and upon power as the major means by which resources become mobilised to achieve organisational objectives, is clearly functionalist in orientation. As such it has been seen by some to represent only a partial statement of the process of control. Mouzelis, to cite one recent example, argues that the Parsonian "capacity for resource mobilisation" theory:

".....is more relevant in a context when all the subunits of the social system have the same interests and profit equally from the achievement of collective goals. On the other hand in social systems, as in most organisations where interests are conflicting, where groups are hierarchically situated, to ignore the distributional aspects of power tends to give an illusory image to a conflictful situation."⁽³⁾

These considerations bring us to a central problem in the analysis of control, with serious implications for the kind of explanatory framework which should exist for the investigation of the control process. The problem is one which is recognised by Mouzelis and other writers concerned to point up the weaknesses of the functionalist approach; yet it is not resolved by the type of argument they use, and the quotation above⁽³⁾ serves as a good example of this. Briefly the problem is concerned with the fact that organisations may be investigated at two distinct levels of analysis: first at the level of the total organisation where the focus for analysis is upon the organisational processes which cope with the major functional problems of organisations or upon variables which structure systems of social

(3) N.P. Mouzelis op.cit. p.156.

relationships within organisations and are seen to exist independently of those who occupy positions within these systems; second at the level of the organisation's social structure where the focus for analysis is upon the actors (or groups of actors) who occupy organisational roles, and upon the interrelationships between these groups. Difficulties arise when attempts are made to refute theories of systems integration in terms of theories of social integration. Typically, as Lockwood has pointed out, and as we have already noted in the previous chapter⁽⁴⁾, the development of conflict theory as a reaction to normative functionalism is confined entirely to the problem of social integration.

It is clear that the consideration which Parsons gives to the interplay between norms and power is incomplete. Nevertheless in the context of his treatment of these processes which centres upon the ways in which they subserve the main functional imperatives of organisations it is perfectly legitimate to treat power as a generalised resource developed to implement collective goals. The extent to which there is actual conflict of ends between sets of actors is a separate issue, and one located at a different level of analysis. It follows that the attempt made by Mouzelis to refute Parson's remarks on the production of power for effective goal achievement on the grounds that he has overlooked its distributional aspects is misleading: power as a generalised resource is a function of organisation - it is a necessary process of organisation; power as a sectional resource is a function of individual groups and their attributes. These two aspects of power may indeed interrelate, but for analytical purposes may be treated separately. This analytical distinction is not always clarified, nor is the nature of the interrelationship between functionalist and conflict approaches to the analysis of systems and social integration.

(4) See previous Chapter, page 46

Perhaps the most recent statement of a systems approach to the problem of control located at the level of analysis of systems integration is contained in the socio-technical system concept advanced by the Tavistock Institute of Human Relations. Like Parsons, the members of this School are concerned principally with the adaptiveness of the total organisation to its relevant external environment and with the adaptiveness of actors to roles whose dimensions are chiefly determined by structural variables which exert their effects irrespective of variations in personal relationships in work.

The systemic quality of the concept is illustrated by Emery⁽⁵⁾ who suggests that the concept directs attention to three necessary stages of analysis of enterprises:-

- (a) The analysis of the component parts of the enterprise to reveal the nature of each insofar as it contributes to the performance of the enterprise and creates or meets the needs of other parts. The first components to be distinguished are (i) the technological and (ii) the "work relationship structure" and its constituent occupational roles.
- (b) The analysis of the interrelationship of these parts with particular reference to the problems of internal control thus created for the enterprise.
- (c) The detection and analysis of the relevant external environment of the enterprise and the manner in which the enterprise manages its relations with it.

It will be noted here that whilst the structural differentiation of the enterprise proceeds along lines similar in some aspects to that of Parsons and the normative functionalists, there are some important distinctions.

(5) F.E. Emery "Characteristics of Socio-technical Systems" Tavistock Institute of Human Relations Document No.527, see p.8.

The Parsonian scheme is symmetrical with the value system of the organisation legitimising its goal, with its adaptive, goal-attainment and integration aspects regulated by controlling subvalues, with its resource inputs regulated by contractual controls, such as employment and investment, and with its operative code governed by an aspect of authority. The socio-technical scheme lacks this formal symmetry: the selection of variables here is for heuristic reasons, and therefore less inclusive. Moreover, whilst the dimensions of the socio-technical system are interdependent, each variable possesses the quality of some degree of independence as the following passage indicates:

"The concept of socio-technical system arose from the consideration that any production system requires both a technological organisation - equipment and process layout - and a work organisation relating to each other those who carry out the necessary tasks. The technological demands place limits on the type of work organisation possible, but a work organisation has social and psychological properties of its own that are independent of technology.....A socio-technical system must also satisfy the financial conditions of the industry of which it is part.....It has in fact social, technological and economic dimensions all of which are interdependent but all of which have independent values of their own."⁽⁶⁾

In spite of these differences, socio-technical analysis provides a useful example of a predominantly functionalist approach to the problem of systems control. Its broad parameters are set by Emery who writes:

".....people within an enterprise must come to see that:

- (a) they (enterprises) cannot simply evolve along the lines its members think they ought to follow.
- (b) they must organise themselves in ways appropriate to the nature and order of the tasks required by their environment.

(6) E.L. Trist "Organisational Choice" Tavistock 1963, p.6.

- (c) they must evolve standards for judging human performance that are in some way objective and not simply based upon loyalty and affection.
- (d) their institutional ideologies and self perception must in some way reflect their real relations with their environment. (7)"

Hence the concept of control is seen as a system-environmental relationship. At the highest level of generality, control implies the management of resources to permit primary task achievement (the task which the production system of the enterprise was created to perform) and to facilitate the achievement of a "steady state". Control is directed, therefore, towards the preservation of the integrity of the organisational system in the face of environmental change where the notion of a steady state refers to a:

"State in which the enterprise as a whole and in its phases remains constant, with a continuous "throughput", despite a considerable range of external changes." (8)

Elsewhere at this level of generality the problem of controlling the steady state of the enterprise has been dealt with more specifically. First it is argued that the technological system plays a mediating role defining the boundary conditions under which a steady state can be achieved (9), thus:

"There is an almost constant accommodation of stresses arising from changes in the external environment and the technological component, by its nature, not only sets limits on what can be done, but also creates demands that must be reflected in the internal organisation and ends of the enterprise."

(7) F.E. Emery op.cit. p.4.

(8) Ibid p.3.

(9) Ibid p.6.

Secondly, it is assumed that whilst technical demands place limits upon the type of work organisation possible, the work organisation itself has independent properties; for example, it must satisfy the financial conditions of the industry of which it is part. Whilst the substantive dimensions of socio-technical systems are socio-psychological and technological, the economic dimension measures the effectiveness with which human and technical resources are used to carry out the primary task. Inherent in this approach is the notion that the attainment of optimum conditions in any one dimension may not produce optimum conditions for the whole system. Optimisation of conditions between these dimensions and in ways which permit the achievement of the primary task of the enterprise would appear to be a primary requirement of the control process.

At a lower level of analysis the process of control is analysed as an aspect of the "work relationship's structure consisting of the occupational roles created to meet the needs of the technical system. Attention here focusses upon the nature of task interdependencies and upon the effectiveness of role structures for the attainment of institutional goals. Analysis is directed towards the measurement of "symbiotic" relationships involving some assessment of the implications of over and under-structured roles for goal achievement. In this context control implies the promotion of desirable role relationships along the following lines:

- (a) in ways which avoid the multiplication of roles to the point where task interdependencies have been concealed.
- (b) in ways which structure the means by which individuals become more task adjusted and task-centred, where the will to help is elicited not by friendliness but by the recognition that task performances are mutually supporting. Such means will include amongst other things the development of relatively autonomous role-sets: groupings of tasks which have "whole" characteristics associated with a well developed role culture.

Analysis of the work relationship structure in these terms leads finally to a third level of investigating the control process in socio-technical systems. This refers to the problem of control in enterprises as internally differentiated entities; here the emphasis is upon the internal control and co-ordination of the enterprise rather than the management of its external relations. Control here is directed towards meeting certain functional requirements of organisations in order to assure the efficiency of their operation. As Emery puts it:

"There remains an important set of problems concerning internal organisation that concern the social system as such (our italics).

Without implying the existence of some supra-organism we can recognise certain things that are structurally and functionally required for the efficient and stable performance of an enterprise."⁽¹⁰⁾

These requirements refer to the necessary existence of a stable method of allocating roles, status and power to persons: the requirement of "optimal structuring". They refer also to the requirement of "optimum distribution": the allocation of rewards and risks in correspondence to the allocation of power and responsibility. A third requirement is that of "maximum institutionalisation" where:

"The effective operation of the social structure requires that its members be motivated by their commitments to the goals of the organisation and constrained by their loyalties to observe a common set of behavioural norms.....The achievement of a shared articulated set of organisational goals depends very much upon the relative solidarity of the different role relations within the organisation."⁽¹¹⁾

A final requirement is that of effective communication between members as the means by which activities are controlled and shared normative structures established.

(10) F.E. Emery *ibid* p.38.

(11) *Ibid* pp.40-41.

It is interesting to note that although this analysis of the control process in socio-technical system theory is overtly functionalist in that it is directed primarily towards the problem of systems integration, it nevertheless contains an important theoretical point of reference which might suggest a linkage with other key sociological perspectives. This refers to the concept of "dilemma" as it is utilized by Emery⁽¹²⁾ to point out that the parts of a social system are recalcitrant, having a nature and requirements of their own, in spite of their interdependence. It is a concept which has close similarities with that of Gouldener's notion of "functional autonomy" discussed in the previous chapter as providing one basis of integrating consensus and conflict theories within a theory of cooperation as well as permitting analysis at the levels of system and actor. For Emery the concept arises within a general discussion of the enterprise and its external environment, at the level of systems integration, but his treatment of it lies essentially at the level of social integration with important implications of how these two levels of analysis may be enjoined.

Thus he argues that insufficient attention has been given by social scientists to the influence of external environmental variables upon internal social systems; of how, for example, such influences are reflected in the determination of organisational goals by management. As the range of alternatives open to the system increases, due perhaps to increased variety in the environment, so the problem of defining the primary task of the enterprise increases and the need to develop some distinctive competence relative to other competitors arises. At this point Emery notes that the concept of primary task however does not permit consideration of the "special problem" where the activities of a sub-system of the enterprise are directed

(12) Ibid p.44

towards an end other than that for which it was created, or pursues purposes which are dysfunctional for the enterprise. Because these recalcitrancies inevitably arise, they create dilemmas and thus pose problems of control for the enterprise.

Emery's treatment of the concept of dilemma suggests that these occur at both the level of systems and social integration. At the level of systems integration it is acknowledged that interdependence entails dilemmas, that the goal of efficient operation depends upon various conditions and that measures taken to meet these conditions may be mutually incompatible. In this sense consideration of the conditions required for the optimum operation of a socio-technical system of production involves recognising the interdependencies but also the degree of independence between its socio-psychological, technical and economic dimensions. It is however at the level of the actor and his commitments, at the level of social integration, that the notion of dilemma is principally considered.

Two sets of forces appear to operate upon the actor in Emery's socio-technical system. The first set are derived from the work relationship structure itself:

"The larger and more complex a production system, the more likely it is to contain systems of different orders and a number of components of the same order. Every succeeding differentiation increases the possibility that agreement about the primary tasks of components may fail to add up to the primary task of the whole."⁽¹³⁾

The second set are derived from the attributes of the actor himself:

".....the drawing in of social beings to carry the occupational role implies the introduction of different and even contrary and social and personal forces, needs or interests. Thus the possibility arises of the role occupants acting in terms of their personal and social influences to the detriment of the production process."⁽¹⁴⁾

(13) Ibid page 43 quoting from A.K. Rice "Productivity and Social Organisation: the Ahmedabad Experiment." Tavistock, 1958.

(14) F.E. Emery op. cit. p.33

Expressed in these terms the existence of dilemmas is seen to impede the effective operation of the social structure of the enterprise which depends, as we have seen, upon the motivation of members by their commitments to its goals and in terms of shared behavioural norms. It is, of course, upon this implicit assumption that participants should share similar views about the nature of the primary goals of the organisation that the most serious criticisms of socio-technical theory have been made. (15)

It is true that Emery regards the solidarity of workers and management as a necessary condition for a high level of solidarity in the enterprise as a whole and the existence of a high level of solidarity a necessary condition for the achievement of a shared set of organisational goals. But there is no reason to suppose that Emery believes in the existence of a permanent unity of constituent parts of the enterprise as a precondition of high mutual solidarity between management and workers, or that organisational goals are specific and exist a priori without reference to the decisions of human actors. Indeed he seems acutely aware of the fact that the institutions of the enterprise are not uniformly supported by all strata, and that the power of particular groups may be crucial in the definition of goals for the enterprise when he writes:

"Those related roles that have the greatest solidarity will tend to, play the greatest part in formulating the goals. It is for this reason that the relations within top management constitute the strategic solidarity for an enterprise. (his italics) Only at this level is there a good chance of selecting goals that are appropriate to the capabilities of the enterprise and the demands of the external environment, and it is only here that there is sufficient power (potential authority) to embody these goals in the structural arrangements

(15) See, for example R.K. Brown "Research and Consultancy in Industrial Enterprises." Sociology Vol.1 No.1, 1967 p.46.

and norms of the enterprise."⁽¹⁶⁾

What has been said on the subject of "dilemmas" is sufficient to suggest that socio-technical theory, as it is represented in Emery's work, is capable of further refinement along lines which permit consideration of the effect of social and cultural constraints upon the manner in which the openness of the social system of the enterprise to its technology and its wider environment is controlled. Emery explicitly recognises this need, but claims that problems involving the recalcitrance of individuals and groups in the face of the "overall requirements of the enterprise" must depend upon other areas of social science for their solutions. The lack of theoretical development in this area, he notes, is consistent with a primary concern with.....

".....clarifying the requirements of socio-technical systems up to, and including, whole enterprises. At the level of analysing individual enterprises the conditions basically contributing to the above phenomena (these refer to human dilemmas) must be regarded as "givens"; they are rooted in the broader human social, cultural and economic context of the enterprise. Thus while it is quite correct to say that failure to consider these environmental encroachments will lead to certain kinds of errors, it would be incorrect to damn socio-technical or related system theories for their failure theoretically to encompass such problems."⁽¹⁷⁾

In this way we are reminded by Emery that his consideration of the "internal elaboration of the social system" of an enterprise - its structure, its norms and its values - is subordinated in importance and as a level of analysis to the wider problem of the relations of the enterprise to its

(16) F.E. Emery op.cit., p.40

(17) Ibid, p.48

environment. Indeed it is explicit that the development and character of these internal relations are determined primarily by the manner in which management controls the continual openness of the work relationship structure to its technology and wider environment. It follows that an approach such as this which is concerned mainly with the process of total organisational adaptation to environmental constraints is necessarily partial, and Emery recognises this. It follows also that an approach which seeks to define the key components of the enterprise in order to assess the contribution of each to the performance of the total enterprise is necessarily selective. This, however, in no way diminishes its utility as a frame of reference for the investigation of certain types of control problem.

We have considered the contributions of Parsons and Emery at some length. Taken together they provide some valuable insights into what will constitute the first and most generalised level of analysis of our model of the control process in industrial organisations. The major points of reference for consideration at this level may now be summarised.

It is our contention that the first group of problems for analysis in any discussion of the control process are located at the level of the total enterprise. In this context the focus is upon the industrial organisation as an open system and here the concept of socio-technical system with its functionalist orientation provides the most effective theoretical framework. Analysis of the enterprise as a whole which, as we have seen, is developed particularly in the work of Parsons and Emery draws attention to certain key problems as follows:

- (a) Both writers emphasise the systemic quality of the industrial enterprise as an open system interacting and defined in certain crucial respects by environmental influences. In both, the notion of interdependence among the key analytical variables of the system is recognised, and in both the notion of structural constraint,

which implies that these properties cannot vary arbitrarily, is emphasised.

- (b) Both writers define the organisation as a goal-oriented system with problems of goal-setting. Here the structure of the organisation is seen to be dependent primarily on its relation to goals which are managerially defined, but whose scope is constrained by environmental requirements. Goal achievement is seen to be problematical and in both cases the functional requirement of obtaining a high degree of solidarity between participating groups is recognised. The institutionalisation of a common value system for the enterprise is seen to be an important condition for the generation of power in terms of which resources become mobilised to achieve organisational objectives.
- (c) Both writers are concerned with the problems of organisational effectiveness and organisational change. In both cases the assumption is made that the enterprise exists to maintain its commerce with the external environment. Attention is then focused upon the institutional requirements which are functionally required to meet this condition, with particular reference to the mechanisms of control which are elaborated to facilitate the achievement of a steady state, a state in which the enterprise as a whole remains constant in spite of external change. In this context judgements of functionality are made upon each or all of the structural elements of the system whose interplay is seen to condition the behaviour of its constituent groups. In both cases analysis is conducted primarily at the level of system integration which implies a prior concern with the overall response of the total enterprise to its task requirements rather than with the related problem of social integration - the interplay between the constituent groups of the organisation in terms of their differing interests and separate power resources.

(d) Given this emphasis upon the systemic characteristics of the enterprise, both writers stress the independence of the social system from individual actors who happen to fill its occupational roles at any one time, as well as the constraining effects of the norms upon which these roles are based. Thus the structural features of the work system (as these are delimited by the rationality of the work of organisation and the requirements of the technical system) are regarded as major determinants of individual work behaviour. At a higher and more generalised level of analysis the enterprise itself is seen to be similarly constrained by economic, social and political influences whose existence may condition the objectives which the enterprise pursues as well as influencing the form which the social and technical systems of the enterprise may take. Thus both technical and social organisation may be constrained, by the general requirement to maintain the economic viability of the enterprise.

It is apparent that certain themes emerge from this discussion which may be incorporated into the model of control which we seek to establish. It is our contention that the major point of reference to be considered is embodied in Emery's claim that enterprises cannot evolve simply along the lines its members think they ought to follow: that they must be organised in ways appropriate to their task requirements by participants whose ideologies and self-perception should reflect their real relations with their environment. Whilst we should avoid any suggestion that the character of the enterprise is determined completely by the effects of technical, market, budgetary and normative constraints (enterprises may equally well establish dominance over aspects of their environments) it is the case that the effect of such constraints will be to define broad requirements which must be met by all parties if the organisation as an entity is to survive. Moreover there is no suggestion that the response of management and other groups within the

enterprise will necessarily be an identical one. Nevertheless it is argued that the analysis of the control process must have regard to the effects of these influences upon the performance of the enterprise and the structure of its formal organisation as well as upon the interactions between its constituent groups. In this sense the appropriateness of organisational goals to the demands of the external environment, demands which may themselves conflict, and the implementation of these goals in the normative structure of the enterprise become important considerations. The management of the response of the enterprise as a whole to its external requirements, the selection of goals by management in the light of these requirements and the means determined to achieve these goals constitute major problem areas at this first level of analysis.

2. THE CONTEXT OF CONTROL: ACTOR AND CONTROL

The process of control can be approached, however, from a different contextual standpoint where the referent is not so much the enterprise but its actors: individual participants within their occupational groups. Here the focus of analysis is less upon the systemic qualities of organisations; rather it is upon the social integration of groups of actors within these organisations.

At psychological levels of analysis the problem of control is frequently posed in terms of motivating participants to higher levels of performance by the reduction of power and status differentials between supervisors and subordinates. One example of the conceptual framework in which this type of analysis is cast is the "psychological contract" theory discussed by Schein. (18)

Schein argues that the notion of a psychological contract implies that individuals have a variety of expectations of the organisation in which they

(18) E. Schein "Organisational Psychology" Prentice Hall, 1965.

participate whilst organisations have a variety of expectations of them. The contract is implemented from the organisation's point of view by securing the consent of its subordinated actors to the authority and directives of their superiors. The contract is implemented from the subordinate's point of view by his perception that he can influence the organisation sufficiently to ensure that he will not be taken advantage of. Consent to the directives of the superior is therefore conditional upon the subordinate's belief that the contract is being met: that his expectations are being fulfilled. Schein points out that the process underlying this contract is one of reciprocity and distributive justice, a continuous process of exchange in which the organisation meets the requirements of the individual for pay, status and security in return for compliant role performance. One important aspect of this process, therefore, is the ability of management to engage the participation and commitment of employees by providing rewards and incentives in line with the requirements, and the changing requirements, of individual actors.

The detection of possible incongruencies between the expectations which individual participants have of their occupational and organisational roles and the formal requirements of these roles as one descends the organisational hierarchy provides an important point of reference for the industrial psychologist and managerial practitioner concerned with the improvement of morale and productivity. Argyris⁽¹⁹⁾, for example, suggests that classical "mechanistic" methods of rationalising production and administrative processes result in the decline of opportunities for individuals to engage in interesting work, making decisions, exercising responsibility and utilising capacities. In as much as these constitute important components of work satisfaction, deprivations in these respects invite maladaptive responses with dysfunctional consequences for the organisation.

(19) C. Argyris "Personality and Organisation" New York: Harper, 1957.

It would be no exaggeration to claim that the main theoretical developments in the field of organisational behaviour have been directed towards the analysis of problems of this type, problems of controlling individual performance in work by seeking solutions to the problem of reconciling the interests of the individual with managerial requirements for efficiency and economy. Frequently these solutions to the problem of motivation in work have been similar: towards a "consensual-democratic" model of the organisation and away from the classical model of "authoritarian-bureaucracy". Strauss, for example, summarises the key dimensions of the Human Relations School which has contributed to the development of this model on an extensive scale as those of hygienic supervision, delegation of authority by management, participation, the participation of subordinates in managerial decision-making, and the introduction of attitudinal and behavioural changes along lines which presumably enhance cooperation with management. Such solutions, as Strauss puts it, provide a common provision for reformulating organisational structures for effective integration of individual and organisational goals through participative techniques in a setting which is non-authoritarian, supportive and person-centred. (20)

By modifying organisational structures in ways which permit increasing involvement, as indicated by Strauss, both the social needs of individuals for identification, collaboration and support, and the psychological needs for self actualisation are held to be met. In various ways therefore the control of participants is enhanced and compliance more effectively obtained either by changing aspects of structure to meet the requirements of actors or by changing the attitudes of actors to meet the requirements of the organisation.

(20) See G. Strauss "Some Notes on Power-Equalisation" in H.J. Leavitt (ed.)

"The Social Science of Organisations", Prentice-Hall, 1963, pp.39-84.

In wider context, analysis of the problem of control at the role-personal level has been performed by Etzioni⁽²¹⁾ whose theory of compliance provides a basis for classifying both types of organisations and sets of actors in terms of the type of power or authority deployed by the organisation as well as in terms of the type of involvement which the participant holds with the organisation. Types of authority are defined as being predominantly coercive, utilitarian (where compliance is secured through the exchange of extrinsic economic rewards for adequate performance) or normative (where compliance is secured through the exchange of intrinsic rewards for performance). Types of involvement are defined as predominantly alienative, calculative or moral. Etzioni's paradigm encompasses three congruent relationships in which compliance is secured by suitable equations of authority and involvement. Thus coercive power is equated with alienative involvement, utilitarian power with calculative involvement and normative power with moral involvement; these equations represent "just" psychological contracts. In terms of this model, business organisations appear to be primarily utilitarian in character, securing compliance mainly by offering adequate financial rewards as the basis of a contractual relationship with participants. At the same time the pattern of authority may be modified to include certain types of normative constraint where non-economic expectations of participants for job and work involvement exist. The ability of non-managerial participants to influence decisions concerning the organisation of work and production in ways which are formally recognised by management would be one example of such an authority pattern. Such changes in patterns of authority over time suggest that the form and content of the contractual relationship will be redefined, opening up new areas of the relationship for joint regulation. In this sense the nature of the control process may well change as the bases of consent to authority by participants are redefined.

(21) A. Etzioni "A Comparative Analysis of Complex Organisations" Free Press

Analysis of the control process at this level, then, draws attention to the problem of assessing the influence of personal involvement in work as a major variable affecting individual sensitivity to various types of rewards and satisfactions derived from employment. In this sense the definition of employee expectations of the control system and some assessment of work as a source of individual self-esteem are seen as important components of work involvement influencing the style of industrial relations in a particular institution.

Not surprisingly the importance of determining variations in patterns of involvement and the relevance of such variations for industrial behaviour have been recognised increasingly by Industrial Sociologists. The implications of this kind of investigation for the analysis of the process of compliance in industrial relations are important, suggesting some awareness that industrial behaviour is not merely a function of the socio-technical system of the plant but also a response to sources of work involvement located externally to the organisation. It is in this context that the social action approach outlined in the previous chapter is invoked.

For our purposes the analysis of work involvement, utilising the action frame of reference, provides a necessary and distinctive alternative to explanations of the control process as a system for directing and controlling the production task of the enterprise as a whole. Here the focus of analysis is upon the expectations of particular groups of participants regarding the organisation of job, work and employment opportunities, in as much as changes in these expectations relate to, and influence, the pattern of control in industrial organisations.

As Goldthorpe puts it:

"Operating from such a position, the first step must be that of establishing empirically the way in which, in any given case, the wants and expectations which men bring to their employment, and the interpretation which they thus give to their work, shape the attitudinal

and behavioural patterns of their working lives as a whole. And to be included herenot only their relationships with their mates, supervisors and managers in the immediate work situation but also, for example, their stance towards their firm as an employer, their "image" of the industrial enterprise, their style of trade unionism and the manner in which they envisage, and plan for, the lives ahead of them. (22)

However, by his assertion that actors' definitions of the situations in which they are engaged should provide the initial basis for the explanation of social behaviour, Goldthorpe seems to imply that explanations from the point of view of the system as a whole are invalid. This is not the view taken here; rather that both functionalist and social action perspectives provide complementary perspectives to the analysis of the control process. On the one hand the analysis of systems control highlights the functional requirements of the adaptation of the enterprise as a whole to its external environment and to the necessary limitations which these demands place upon the internal control of the organisation. On the other hand the analysis of social integration and the social control of participants emphasises the differing interests of the constituent groups of the enterprise as well as the common values which these groups share. Ultimately the value of the social action perspective is seen not so much as an alternative to the functionalist approach; rather as a complementary perspective located at an entirely different level of analysis of the control process. This becomes apparant when it is recognised that whilst enterprises adjust to external demands, the form which that adjustment takes depends in part upon the outcome of what amounts to a continuous process of inter-group bargaining over what constitutes the legitimate goals of organisational activity at any one moment in time. Moreover the extent to which the participating groups

(22) J.H. Goldthorpe et. al. "The Affluent Worker: Industrial Attitudes and Behaviour" Cambridge, 1968. pp.1840185.

share common perceptions of the state of the enterprise at any one point in time and hold similar views about the nature of the constraints imposed upon all groups by the demands of the environment of the enterprise will obviously affect the overall adjustment which the total enterprise is able to make.

The implications of these remarks is that the analysis of control in industrial organisations requires some consideration of the expectations and aspirations of the key groups of participants whose interactions define the nature of the enterprise's response to its environmental demands. Failure by management to consider the expectations of its subordinated groups in the formulation of organisational goals may well complicate the control process. Turner provides one example in his discussion of the growth of unofficial strikes in this country:

"But on this trend, the last two years have superimposed another sharp rise in the frequency of unofficial strikes against dismissals and - at last - for wage increases. So far from reducing the frequency of unofficial disputes, recent unemployment and economic stagnation have increased it by outraging now-established expectations - expectations of security and an automatic annual increase in income, such as salaried employees commonly enjoy. Indeed one might interpret recent stoppages as an implied protest against what constitutes perhaps the outstanding caste division of contemporary society - the difference in status and treatment between the wage-earning and the salaried person."⁽²³⁾

To examine the problem of social integration in the enterprise, therefore, implies at the level of the role-person some assessment of the types of orientation of actors as well as some definition of the sources of orientations to work. In part, as we saw in the first chapter, the use of the social action approach requires some examination of the social situations of actors

(23) H.A. Turner "The Trend of Strikes", an inaugural lecture, Leeds

outside the workplace, as these structure definitions of the work situation, and in part some consideration of the effects of occupational socialisation upon individual attitudes to work and employment.

The examination of the influence of the external environment of the actor in the enterprise, that is, of "community" factors was touched upon in the previous chapter. Here we wish merely to stress the importance of considering these factors in the context of the present discussion on the control process. It is the case, however, that the usage of the social action framework in Industrial Sociology has encouraged the investigation of the normative characteristics of ideal types of working class communities and the social imagery which they are held to impart to their members. Two polar types have been isolated in the literature⁽²⁴⁾. Firstly, the "proletarian" worker type, located in more traditional industrial communities dominated by single industries, populated predominantly by manual workers with similar past and present experiences of housing, education and leisure, is socialised to see work and society in a distinctive manner. Thus the effects of employment and residence in close-knit work and community situations is held to produce a solidaristic, but from management's viewpoint, a negative orientation towards the firm. It is held to be an orientation which originates in communities characterised by a high "resonance" factor created by the constraining influences of a homogeneous family and communal life, and one which is hardened in the circumstances of the work situation if the system of work organisation isolates the worker from involvement in the organisation in ways which parallel his social "isolation" outside the firm as the member of a relatively deprived and inward looking community. The work situation of this proletarian type has been summarised by Furstenberg as follows:

"The "proletarian" worker type.....is exposed to the extreme pressures of a work system, predetermining entirely the extent and intensity of

(24) D. Lockwood op.cit.

his efforts. Social relationships based upon the social framework of the plant are strictly authoritarian. Thus working class members can express themselves as human beings by opposing the whole system, thereby creating a social dichotomy between the expropriated but solidaristic workers and the expropriating members of the capitalist class. Alienation from work, relative deprivation of its results and militant solidarity are the main attributes of this type."⁽²⁵⁾

At the other end of the spectrum the second type of working class consciousness is associated with what has been defined as a predominantly "pecuniary" conception of society and an instrumental orientation towards work and employment. The basis of the social imagery of the "privatised" worker is a definition of work as a source of extrinsic (monetary) satisfactions only; intrinsic satisfactions are seen to be derived from non-work areas of family life and leisure time activities. In this context work serves purely as a means to the self-advancement of the participant and his immediate family. Such an orientation to work is regarded by some writers as being crucial in the explanation of the attitudes of the contemporary industrial worker in societies like our own. Dubin, for example, suggests that work is becoming less significant in the life interests of employees not only because of the increasing rationalisation of the organisation of production but also because of the increasing opportunities existing outside the workplace for meaningful social experiences.⁽²⁶⁾ In its community context, moreover, this type of orientation to work has been associated with residence in a qualitatively different form of local community; one which lacks the solidarism and shared deprivations of the traditional working class community. Consequently

(25) F. Furstenburg "Structural Changes in the Working Class" Ch.7 "Social Stratifications" ed. J.A. Jackson, Cambridge 1968 pp.145-174, see especially p.148

(26) R. Dubin "Industrial Workers' Worlds: A Study of the Central Life Interests of Industrial Workers' Social Problems, 3, Jan.1956 pp.131-142

the process of "privatisation", a style of life based upon family centredness, conspicuous consumption and the evaluation of self in terms of impersonal pecuniary criteria, is seen to operate most clearly in new working class residential areas divorced from the traditional constraints of older and more established communities.

The implications for the control of industrial organisations of such changes in the elements of working class social imagery are important. Furstenburg concludes that the substance of such changes involve a movement towards the "less class-conscious and more self-conscious" social attitudes of the privatised worker. Two possible lines of development in management - worker relations stem from such changes. Firstly, worker involvement in the organisation will tend to become more narrowly calculative and typified by a low degree of affect, so that the saliency of work will tend to decline. In these terms management will be evaluated by employees for its ability to provide and maintain high monetary rewards: management will be sanctioned increasingly where it fails to guarantee secure and well remunerated employment, and where its organisation of the production system fails to eliminate obstacles to this end. Moreover, as Goldthorpe suggests, it follows that satisfaction with an employer in these terms can be combined with an acute dissatisfaction with individual tasks:

"Rather, our data would indicate that attitudes towards job (in the narrow sense) and firm can, in certain cases, be quite sharply dissociated; that unrewarding and stressful work-roles need not lead to a generally negative orientation towards the enterprise as an employer."⁽²⁷⁾

and

"To the extent that workers define their employment as essentially a means of acquiring a certain standard and style of living outside of work, it is clearly possible for them to take a negative view of the

work-tasks they actually perform while at the same time appreciating a firm which offers pay and conditions that can bring a valued way of life within their grasp."⁽²⁸⁾

Under such conditions it is possible, therefore, to talk meaningfully of the worker's attachment to his firm as being conditional upon the economic opportunities afforded to him by employment and managerial policies. Further, it suggests that given such orientations towards work, effective control is secured in part where a congruence exists between such expectations from work and the level of remuneration offered by the organisation.

The second line of development stemming from changes in working-class social consciousness relates to the manner in which the calculative involvement of the "privatised" worker expresses itself, and the implications of this for management-labour relations. In this context it is necessary to consider the impact of changing expectations of manual workers upon the traditional system of collective bargaining in this country. Two brief points can be made here. Broadly speaking, the substance of recent commentaries on the incidence of industrial conflict relates to the propensity of the British industrial relations system for cost-inflation in specific industries, a situation induced as much by the "strategies of independence" of workpeople at plant level as by the indulgency of management. Of equal importance, however, as Turner suggests, is the failure of the traditional system of control to accommodate new employee expectations with regard to issues outside the sphere of pay-determination, issues relating to the security of employment and earnings, differentials between the status of blue and white-collared workers in employment concerning rights and benefits, and participation in managerial decision-making where such decisions have a

(28) Ibid p.79.

bearing upon the interests of employees.

Such facets of the calculative involvement of the privatized worker are by no means inconsistent with what Selig Perlman claims to be descriptive of the psychology of the worker: a consciousness of scarcity of employment and a desire not only to protect, but to control and even "own" the job.⁽²⁹⁾ But such a limited orientation may be more extensive in scope than is first imagined. Indeed the instrumentalism of the modern industrial worker exhibits itself not only as a concern with the level of rewards, but also with their stability and with the security of employment. The situation is aptly summarised by Turner when he notes that possible changes in the expectations of manual workers are best expressed in two ideas: that wages should be "fair" in comparative terms, and that the performance of a job establishes property rights in it.⁽³⁰⁾

Such a situation seems hardly surprising when the manual worker in growth industries has developed expectations of, and has been accorded, continuing annual wage increases not unlike those received by his white-collared counterpart. This is not to say that wage differentials between manual and non-manual workers have necessarily narrowed, however; nor does it imply that differences which exist in respect of other conditions of employment between these two groups have declined. The relatively substantial improvements in the economic status of manual workers, therefore, might be described as an oblique compensation for a continuing inferiority in the distribution of "fringe" benefits, promotion possibilities, stability of earnings and security of employment compared with the non-manual "staff" employee. What typifies the contemporary manual worker above all is that, in spite of economic advancement, he remains, as Furstenberg notes, plant-bound and production-bound to a relatively high degree.⁽³¹⁾

(29) S. Perlman "A Theory of the Labour Movement" Kelley, 1949.

(30) H.A. Turner op.cit. p.18.

(31) F. Furstenburg op.cit.

Moreover, it seems unlikely that the involvement of the instrumentally oriented manual worker will be satisfied merely by a passive acceptance of the work situation and the economic environment as this is defined for them by management in individual plants. The educational development of manual workers coupled with an increasing freedom of consumer choice made possible by improved standards of living may well imply an informed appreciation by the "privatised" worker of the benefits of economic development, a goal towards which they, as much as management, may be anxious to move. In this sense it appears that such workers will increasingly demand the right not only to be treated "fairly" by comparison with other more privileged groups in the work situation, but also will expect the right to have some say in the determination of the economic future of the firm by participating in a widening range of decisions with management.

This last point is important. Allan Flanders has argued convincingly for a re-appraisal of classical theories of trade unions as defined, for example, by the Webbs in terms of their role as simple bargaining instruments over the price of labour. Collective bargaining as a social institution is more extensive and more complex than this to him; of particular importance in his argument is the role of the trade union as an institution for regulating labour management and managerial discretion, and for its joint participation with management in job regulation.⁽³²⁾ Flanders is careful to point out that joint regulation need not be equated with joint administration, for administration is the unique function of management. Nevertheless the crucial quality of the institution of collective bargaining is to make possible the joint determination of procedural and substantive rules by management and labour both to "provide guidance in areas of managerial discretion" and to "deal with the conflict between the divergent interests of management and unions". When collective bargaining broadens

(32) A. Flanders "Collective Bargaining: a Theoretical Analysis" British Journal of Industrial Relations Vol.6, No.1 March 1968, pp.1-26.

its scope from regulating markets to regulating management, it changes its character because different demands are made upon it.

To summarise the discussion on the subject of changes in the expectations and opportunities of manual workers, we can say that these focus increasingly upon the expectations of continually rising standards of living, stable earnings and, underlying these, expectations as producers to be consulted and, where relevant, to participate in the making of decisions which have an influence upon the ways in which these goals can be attained. The possibility of considering qualitative changes in the scope of collective bargaining as an instrument of control will depend, therefore, in part upon the analysis of the ways in which employees evaluate their work situations, and for this purpose, as we have suggested, the "social action" approach can be utilised.

If, in fact manual workers today tend increasingly to evaluate employment more in terms of their own individual needs and less in terms of the social groups of which they are part, it follows that there will be a growing preoccupation with personal and situationally determined problems at plant level. The implications for this for current industrial practices have been noted by the Royal Commission on Trade Unions and Employers' Associations in its report⁽³³⁾ and in the Government White Paper "In Place of Strife - A Policy for Industrial Relations"⁽³⁴⁾. In their discussions of the defects of contemporary British industrial relations, both comment upon the inadequacy of the "formal system" of predominantly industry-wide collective agreements for meeting matters of common concern to employees and employers. Paragraphs 16 and 17 of the White Paper, for example, contain the assertions that:

(33) Royal Commission on Trade Unions and Employers' Associations 1965-68
Cmnd 3623, H.M.S.O. 1968.

(34) "In Place of Strife - a Policy for Industrial Relations" Dept. for
Employment and Productivity. Cmdn 3888, H.M.S.O. 1969.

"Too often employees have felt that major decisions directly concerning them were being taken at such a high level that the decision-makers were out of reach and unable to understand the human consequences of their actions. Decisions have been taken to close down plants without consultation.....Outdated social distinctions between hourly-paid employees and those on staff conditions have been perpetuated.....
(Para. 16)

and

"The combined effect of such defects is to increase the feeling of many employees that they have no real stake in the enterprise for which they work." (Para. 17)

Given the problem, a problem which is likely to increase where market demands imply sweeping technological and administrative changes, it is not surprising that the reform of our collective bargaining system has been posed in terms of an extension and formalisation of the negotiation of comprehensive company or plant agreements to complement national, industry-wide agreements dealing with the settlement of basic wage rates and other conditions of employment. The advantages of such a two-tier system of collective bargaining for the purposes of the present argument appear to lie in the opportunities provided by localised bargaining, and especially productivity bargaining, for instrumentally oriented workpeople to hold a direct stake in the efficiency of the production system to which their incomes are linked. The advantages both to the employee and to the employer have been summarised by Ross as follows:

"The sense of being in control, to some degree, of one's own terms and conditions of employment will tend not only to develop greater satisfaction all round but also to encourage a more responsible approach to wages issues by the parties concerned within the firm.....In particular the system will give greater flexibility and allow wages to be more closely adjusted to the position of the firm.....In this

direction, a further advantage.....is that it will tend to secure more ready acceptance by labour of the need for change and adaptation."

(35)

and

"Its advantages from the point of view of employer-employee relations... ..spring from the fact that it requires the provision of full information to employees, and, thus, not only increases the sense of partnership in a joint enterprise, but strengthens the forces making for more efficient management. By associating employees with discussions of business policy, it heightens their feeling of involvement in the affairs of the firm and strengthens co-operative attitudes on their part."(36)

Perhaps the most important aspect of such developments in the scope of collective bargaining, however, is that, unlike conventional piecemeal agreements, productivity bargaining requires that proposed changes be comprehensive and mutually determined by both sides, and so formulated to ensure that both sides benefit by the agreement. Such agreements, finally, suggest implications for the validity of current sociological approaches to industrial relations which frequently assume that the distribution of power, prestige and income in business organisations is fixed and scarce, and that a fundamental dichotomy exists between the interests of the parties concerned. Under the conditions which we have described above, business organisations may be conceptualised conversely as expanding, rather than static, economies and perceived as such by both management and labour. Under these conditions the economic interests of both may be seen to converge rather than to diverge. It is in this sense that the conceptualisation of the enterprise inevitably as a "zero-sum" model may be questioned. This is a matter to which we shall return later.

(35) N. Ross "Workshop Bargaining: a New Approach" (Fabian Tract 366)

(36) Ibid

3. THE CONTEXT OF CONTROL: OCCUPATION AND CONTROL

The problem of control can be approached, finally, from the standpoint of institutional influences upon individual orientations to work on the one hand, and institutional influences upon the scope of collective bargaining on the other. In this context the existence of occupational ideologies, including managerial ideologies, must be regarded as constituting a separate referent for analysis.

The case for a separate consideration of occupational and managerial values arises, therefore, from the consideration of how far occupational membership influences individual attitudes of job and work; how far, in fact, it contributes towards a definition of the worker's self-concept of his role. For our purposes, its usefulness can be indicated in the following ways.

One possible line of enquiry concerns the extent to which the ideology of the occupation (assuming it to exist) inhibits the process of privatisation or modifies the mode of its expression. Cannon, for example, suggests that:

"If embourgeoisement implies concern with individual interests and aspirations then it is likely to be paralleled by a reduction in the influence of the working group."

But,

"Would it not be possible for an occupation, through the social relations that it encourages, to maintain its influence upon the ideology of its members? The arguments had neglected the occupation itself as a variable, partially determining the life pattern and outlook of its members."⁽³⁷⁾

The compositor's income, expenditure patterns and aspirations appear, as Cannon notes to be those of a worker undergoing embourgeoisement - yet his ideology, in terms of class and political affiliations is more radical than that found amongst the skilled working class in general. In explaining this phenomenon, Cannon draws attention to the existence of a powerful

(37) I.C. Cannon "Ideology and Occupational Community: a Study of Compositors" Sociology Vol.1 No.2, 1967 p.166.

occupational community whose existence depends in part upon a favourable socio-technical system. The function of the occupational community here is to provide a locus for the development of solidary primary social relationships, sufficiently strong to offset their transfer to the community outside work. The same point is made by Hamilton in his study of the behaviour and values of skilled workers. Here too, Hamilton finds that the income of skilled workers appears unrelated to values. Such workers form something of an autonomous status group within a semi-autonomous subcommunity. With regard to the American skilled worker, Hamilton suggests that with his own status satisfactions, relative job security and traditional style of life, such a worker has little incentive to try for alternative sets of life goals. (38)

A second line of enquiry, related to the first, concerns the pervasiveness of the occupational culture. In general terms this refers to the relevance of occupational values for the control of work situations, specified through a variety of behavioural norms covering apprenticeship, demarcation and manning, seniority and job rights. At the same time the existence of shared norms, values and beliefs may define goals concerning the types of satisfaction to be derived from job and work: thus the desire, for example, to maintain a craft culture is reflected in the demand for the retention of freedom and autonomy in work and for the defence of a traditional sphere of competence in spite of the requirements of market and technological change. In this sense the existence of an occupational subculture has crucial implications for both worker and management. The disruption of an occupational community may provide the source of considerable individual dissatisfaction with work; from management's point of view, attempts to introduce changes which violate the values and moral codes of union members may be most severely resisted. As

(38) R.F. Hamilton "The Behaviour and Values of Skilled Workers" in A. Shostak and W. Gomberg "Blue Collar World" Prentice-Hall 1964 pp.42-57.

Sadler has noted in his discussion of the outcome of the Fawley productivity agreement:

"Perhaps the significant lesson of this study for the future of productivity bargaining in automated plants is that the resistance most difficult to overcome was resistance of a "cultural" nature.....For example, among the craft union members it was felt that to defend their field of work against trespass was a duty rather than an act of self-interest. Management at Fawley recognised that resistance on such grounds could not be "bought off" and devoted a great deal of effort to persuasion where such issues were raised."⁽³⁹⁾

On the other hand the planning, introduction and processing of changes in the production system by management in ways which permit the maintenance of occupational values (expressed in the behaviour of work groups or trade unions) may well be a crucial aspect in the stability of the control process of the enterprise.

A third line of enquiry prompted by the analysis of occupational aspects of control relates to the ends pursued by the various occupational groups in the enterprise and the degree of congruency which exists between these ends. The complex pattern of inter-occupational patterns which characterises typical plant social systems contains both unifying and diversifying features. Whilst it is true that all employees share similar goals by virtue of occupying a common market position as sellers of labour power, considerable differences exist on the basis of skill, involvement in work, dispensibility to management, status and reward. Such differences obscure the broader ends which are commonly held.⁽⁴⁰⁾

With this brief discussion of the occupational aspects of control we conclude the analysis of the control process viewed from the stand-point of the individual actor and his occupational group. At this level of analysis we have sought to show that:

(39) P. Sadler "Social Research on Automation" S.S.R.C., Heinemann 1968 p.40

(40) On the question of inter-occupational divisions see, for example, W.H. Scott et al "Coal and Conflict" Liverpool University Press, 1963.

- (a) The investigation of actors' expectations of job, work and employment may be utilised in the development of propositions about the nature of social integration in the business enterprise. The exploration of individual adjustment to work, however, requires investigation of the social and personal environment of the actors concerned, involving some appreciation of the constraining effects of the occupational, community and social class contexts in which actors move.
- (b) The objective of developing propositions about the nature of social integration in the enterprise is to illuminate one important aspect of the process of enterprise control: how far the adaptation of the organisation to its external environment is constrained by the behaviour of its members. Analysis at this level, therefore, draws attention to the values and interests of occupational groups of participants as these impinge upon management's ability to secure the effective achievement of the firm's productive task. In this way, analysis of the mode of social integration in the organisation sheds light upon the wider process of system integration: the overall response of the enterprise to its environmental demands. This is not to say that the quality of systems integration is determined by the mode of social integration, since the former is influenced by factors located at the level of the enterprise as a whole (technical, market and budgetary constraints outside the enterprise). What we argue is that the total response of the organisation to its production task is determined in part by factors peculiar to the groups employed in the enterprise whose interactions, values, interests and expectations are more properly discussed at the level of the social integration of the enterprise.

4. The Concept of Control: System and Social Integration

Discussion of the two main contextual features of the control process so far - organisation and actor - suggests that a necessary interrelation exists between functional (and systems) perspectives of control on the one hand and social action perspectives on the other. The dimensions of these perspectives have been outlined and introduced into the analysis of the interrelationships between systems and social integration in the business enterprise.

In this discussion the control process of the enterprise is seen to respond to two major contextual influences:

- (a) The first derives from environmental influences upon the enterprise as a whole. These influences originate in the technical, market and social environment of the firm and function in ways which set broad limitations upon the mode of systems integration possible for the successful achievement of the overall production task. Management's definition of what this task constitutes and how best it might be achieved occurs within these parameters. Failure to observe these limitations may well carry cost implications for the business success of the enterprise.⁽⁴¹⁾ Moreover, consideration of these enterprise environmental influences permits some delineation of the functional imperatives which all business enterprises are required to meet. In this context the control process refers to the arrangements made by management for the achievement of the production task where the control of work takes the form of various technical and organisational constraints built into the role structure of the enterprise.
- (b) The second derives from environmental influences upon the individual actor and upon groups of actors as incumbents of work roles. If the economic, technical and administrative arrangements described in the

(41) J. Woodward "Industrial Organisation" Oxford, 1965.

previous paragraph impose limits upon social action, it is also the case that the sensitivity of individuals to these limitations (or their desire to change them) is mediated by the effects of membership of distinctive social groupings such as community, occupation and social class. In this context the control process refers to the arrangements made between management and other occupational groups within the enterprise for the joint regulation of work in line with the expectations of the groups concerned.

The choice of this particular frame of reference is not arbitrary. By emphasising systems constants we seek to delineate those functional requirements which must be met by all participants if the enterprise is to survive. In this sense we see the control system as being in part responsive to such systems pressures and functioning to maintain the organisation over time. By emphasising the role of interacting values between management and labour we are concerned to illustrate the simultaneous existence of converging and diverging interests between them, the former making for stability of control through shared values, the latter making for change through conflict. By emphasising the role of individual actors in the system we are concerned to show how established patterns may be legitimised or changed from below.

In summary it is felt that the analysis of forces impinging upon the control process and subsequently influencing its operation must include explanations located at both levels of the enterprise as a system and actors who participate in these systems. In so doing we have also treated the firm as a potentially expanding economy wherein the uses of power at the disposal of key interacting groups is directed in part towards the solution of the firm's production problems in ways which expand the joint power of all parties in a mutually rewarding way. Moreover such an analysis demonstrates the continued existence of sectional interests which themselves affect the extent

to which joint goals can be pursued and thus determine the boundaries of joint action. The final area illuminated by the use of this frame of reference concerns the nature of joint regulation within the control system. We see the control system's function as the regulation of divisive conflict and the encouraging of co-operation by the allocation of power. This implies the view that the control process involves both areas of bilateral control and areas where either management or labour has unilateral control. Of particular interest here is the extent of bilateral rule - making as an important source of stability in plant control systems. Thus if one important aspect of control is its capacity to contain disputes without severe disruption it is necessary to examine the extent to which the mode of rule-making is legitimised by participants, and the extent to which the process of rule-making is inclusive of all participating groups. Moreover this emphasis upon the stabilising features of the control system encompasses also the structural framework within which the process of control occurs; hence the need to locate those aspects of the technical and organisational system of the enterprise which facilitate the continuing stability of the control system in spite of changes in the environmental demands of enterprise and actor. It is in order to deal with these problems that we argue for some degree of theoretical integration in the study of industrial relations. So far we have outlined the case for a frame of reference which integrates the perspectives of enterprise and actor; we must now expand our discussion of the dimensions of control to deal with the problems of consensus and conflict, continuity and change in the enterprise. If we have established the contextual framework of control, we have yet to describe the operation of the control process itself. This we shall proceed to do in the final chapter of Part I.

CHAPTER 3

CONSENSUS, COOPERATION AND CONFLICT: THE PROCESS OF CONTROL

In the first chapter we sought to establish a general case for some degree of theoretical integration in Industrial Sociology. By outlining a contextual framework for the analysis of control in the second chapter the broad parameters of control were indicated, and in this way one line of theoretical unification between functionalist and social action perspectives suggested. In this chapter it is intended to consider the dynamics of the control process in more detail but along lines prompted by the analysis in Chapter 2. Consequently the continuities between the structural contexts of control and the operation of this process will be emphasised but in ways which will suggest other areas for theoretical unification between the levels of system and social integration in the business enterprise.

Our focal concerns here were introduced in the concluding remarks of the previous chapter. Given that a primary functional requirement of the business enterprise is to maintain itself in existence and to grow, and management's task one of making sufficient revenue to meet liabilities, it follows that one function of the control process is the management of environmental change. The effects of variations in product markets upon organisational structure and behaviour have been assessed, for example, by Burns and Stalker who have demonstrated that uncertainty in the business task of the enterprise and the recognition by management of the need for continuing product innovation have crucial implications for the development of network management and fluid systems of administrative control.⁽¹⁾ However the process of defining the firm's overall production goals influences the pattern of technical and organisational constraints upon behaviour to the

(1) T. Burns and G. M. Stalker "The Management of Innovation" Tavistock 1961.

level of individual work roles. It is in this sense that the analysis of system integration in the enterprise must include some consideration of the appropriateness of rôle structure for the effective achievement of the firm's production task.

Moreover, as we have seen, the analysis of control extends to considerations of the quality of social integration in the enterprise. The effectiveness of social integration depends in part upon the content of work roles and in part upon the rewards of employment. The levels of individual job and work satisfaction are functions of the scope of work roles, and the overall ability of the enterprise to achieve its production task may well depend upon the effective adjustment of these rôles along lines compatible with the personal and social requirements of employees. From management's perspective the necessity to secure the consent of its subordinates to its authority, to legitimise its objectives, is crucial. In this context the achievement of solidarity between management and workers must be regarded as a prime functional imperative of the enterprise and its management.

It is, however, over the vexed question of what constitutes "solidarity" within the enterprise that opinion divides. Typically, as we have seen, the controversy about the degree to which the interests and values of management and labour are compatible distinguishes the "Functionalist" and "Human Relations School" on the one hand from the "Conflict of Interest" school on the other.⁽²⁾ Increasingly, however, it is to the question of what conditions are conducive to a greater or lesser degree of conflict that other writers have turned. As Stone puts it:

"...we need to state our theoretical problem in studying industry not in terms of polar concepts like solidarity versus anomie, or cooperation versus conflict, but rather in terms of the processes of sociation and dissociation which result in types or forms of relationships varying

(2) See Chapter 1.

from one extreme of conflict to the other extreme of solidarity.....

We should talk of both sociative and dissociative factors within the same general framework."⁽³⁾

Our view is that the concept of solidarity requires refinement along lines which indicate how the common standards of participants coexist with their conflicting interests to produce stable patterns of control upon which the enterprise depends for the effective achievement of its production tasks. In this chapter we shall be concerned, therefore, with the extension of the frame of reference to provide points of reference for the investigation of the nature of social integration in the enterprise with particular emphasis upon the interrelationships between solidarity, power and a stable process of control. By focusing upon the determinants of stable control we seek to shed further light upon the relations between system and social integration, but this time in ways which permit the integration of "conflict" perspectives with those already introduced in the previous chapter.

1. INTERDEPENDENCE AND SELF-MAINTENANCE IN SOCIAL SYSTEMS

The question of what constitutes a stable process of control may be approached from at least two directions. Initially it can be argued that such a condition obtains where some congruency exists between the functional requirements of the enterprise for self-maintenance and growth and the economic, social and personal requirements of individual actors within distinctive occupational groups. Alternatively one could say that stability is achieved where disruptive conflict is minimised and cooperation encouraged in ways which permit groups of actors to maximise their own interests through contributing to the achievement of the firm's production goals. Effective control is realised where one or both of these conditions are met.

The attainment of a stable pattern of effective control is necessarily problematical in the context of business organisation. This stems from the fact that the employment relationship involves both convergent and divergent

(3) R.C. Stone op.cit. p.122

interests, and that one crucial aspect of management-worker relations implies a basic conflict of interest over the distribution of rewards, authority of management, work organisation and the conditions (and security) of employment.

(4) Conflicts of interest are endemic to, and characteristic of, such relationships.

At the same time it is necessary for participants to cooperate in order to achieve whatever comprises their common objectives. As Tabb and Goldfarb state:

"The extent of their readiness to cooperate within the system depends on the degree to which this activity advances their self-interest and enables them to achieve their desired objectives. However, while each one is pursuing his own objectives, they must also manage to achieve their common objectives."⁽⁵⁾

For some writers the need to understand what unites the objectives and activities of participants whose interests may well conflict is regarded as crucial in settling certain ambiguities in sociological research. Horowitz, for example, in seeking to distinguish the concepts of consensus and conflict, argues for the development of a theory of cooperation along these lines:

"What is required at this juncture is a more adequate sociological theory of cooperation; a stipulation of the conditions of that minimum set of beliefs about man and his social universe that is consonant with continued survival and growth....."⁽⁶⁾

and

"The concept of cooperation is essentially the programming of common standards in a world of conflicting interests and even different notions as to what constitutes interests."⁽⁷⁾

(4) See for example A. Fox "A Sociology of Work in Industry" pp.135-181

(5) J. Tabb & A. Goldfarb "Workers' Participation in Management Expectations and Experience" Pergamon Press, 1970 p.30.

(6) I.L. Horowitz op.cit. p.188

(7) Ibid p.188

This same emphasis upon the implications of cooperative action is reflected also in the work of Chamberlain and Kuhn whose concept of "conjunctive bargaining" describes the relationship where union and management come to agreement through sheer functional necessity. Thus they argue:

"Collective bargaining in most instances today requires that some agreement be reached between the parties. However prolonged the strike to settle disputes over divergent interests, some agreement must ultimately be forthcoming if collective bargaining continues. Thus neither party is independent under collective bargaining. Neither can perform its function without the other.....When collective bargaining is accepted.....the great change which takes place is the creation of two organisations, in one sense independent of each other but in another sense mutually dependent. For each, the achievement of its own function is dependent upon a working relationship with the other. This fact of mutual dependence cannot be overstressed, for it is perhaps the most fundamental aspect of modern industrial society."⁽⁸⁾

In this way Chamberlain and Kuhn establish the functional necessity of such joint relationships for the control of work; at the same time they point to the implications of such relationships for the actors involved. Thus:

"Neither party can secure its objectives without a joint working relationship. Reciprocally the terms of that relationship define the extent to which each attains its objectives. The terms of the relationship, that is to say, deal with matters of divergent interests and each party secures its interests to the extent of its relative bargaining power."⁽⁹⁾

In this sense the attainment of individual or sub-group goals is seen to depend upon cooperation rather than conflict per se.

(8) N.W. Chamberlain and J.W. Kuhn "Conjunctive and Cooperative Bargaining" in "Collective Bargaining" ed. A. Flanders Penguin 1969. p.318.

(9) Ibid p.319

Moreover, these writers emphasise the crucial imperative that:

"In a joint relationship which is based on necessity, the extent to which either party or both parties can attain their objectives is dependent upon business performance. The business performance which attaches to the company as a whole defines what the parties will divide between them.....No matter how strong the bargaining power of one relative to the other, the advantages which each can derive or the costs which each seeks to shrug off are dependent on total performance of the enterprise. At the extreme, business failure means its complete incapacity to satisfy the objectives of both owner-managers and union member employees. (10)

In this sense the scope of cooperation is recognised to be limited by the efficiency of the enterprise in meeting its production and commercial goals. Since business performance is itself partly conditional upon the effects of external constraints impinging upon the enterprise, it follows that whilst the success of joint action is a determinant of business performance, reciprocally the external determinants of business performance also function to structure the nature of joint action between the parties concerned. Thus:

"Business performance fixes the boundaries within which each party can achieve its objectives, but is itself limited by the relationship existing between these parties. (11)

Consequently it appears necessary to define the concept of solidarity and the nature of social integration in the business enterprise in ways which recognise the existence of joint action between management and labour as an important prerequisite for stability of control; further, in ways which recognise the nature of cooperation as the key process by which solidarity is achieved and maintained. Effective cooperation is achieved not so much by the clarification of the goals of the enterprise and the motivation of actors by management to comply with its requirements (12); rather that cooperation

(10) Ibid p. 321.

(11) Ibid p. 322.

(12) This would represent the definition of solidarity provided by the Human Relations School.

is seen by actors to provide the essential means by which personal objectives can be attained. As Chamberlain and Kuhn put it:

"The basis for cooperative bargaining is the fact that each party is dependent on the other and, as a matter of fact, can achieve its objectives more effectively if it wins the support of the other. This means that when one party is seeking a change the better to secure some objective, it is more likely to succeed in its design if it anticipates what objections may be raised by the other party, on whose cooperation in the matter the degree of its own success depends.⁽¹³⁾ (their italics)

The same argument to the effect that cooperation should be seen as a crucial aspect of the control process is found in the recent work of Eric Rhenman whose theory of industrial conflict is based upon the notion that a situation characterised by pure conflict rarely occurs:

"Much more usual is some kind of conflict and a need to cooperate: one party's chances of achieving his goals depend partly on the ability to win over his opponent and partly on the ability to cooperate with him."

(14)

Rhenman summarizes his theory as follows:

- (a) "The survival of the organisation is a common goal of all stakeholders."
- (b) "This creates interdependence between the stakeholders."
- (c) "Coordination is thus required and often felt to be urgent."
- (d) "The stakeholders also have conflicting goals and this often leads to a conflict of interests - usually felt just as strongly."
- (e) It falls to management to arrange a resolution of these conflicts so that the necessary coordination can be attained. To a great extent the resolution of conflict has been institutionalised. In other words it follows definite rules.

(13) N.W. Chamberlain and J.W. Kuhn op.cit. p.323-324.

(14) E. Rhenman op.cit. p.36.

(f) "One of the most important methods for resolving conflicts.....is joint decision making."⁽¹⁵⁾

In passing, it should be noted that Rhenman's model assumes that cooperation in industry functions primarily to resolve conflict inherent in industrial relations. Quite apart from the question of the utility of conflict as an agent of change or as an instrument for the clarification of issues dividing management and labour⁽¹⁶⁾, we prefer to view the process of cooperation as being responsive not only to the conflicting interests of the parties concerned, but also as existing to enhance the achievement of certain common interests. In this sense the process reflects both unifying and diversifying characteristics of management-labour relationships. What unifies or diversifies the parties, however, is a matter for empirical investigation within specific industrial contexts;⁽¹⁷⁾ nevertheless it would appear to be an important aspect of the investigation of "conjunctive bargaining" to identify the existence of these converging and diverging characteristics, the former making for stability of control through shared values, the latter making for change through conflict.

It is at this point that we must return to the frame of reference introduced in the previous chapter. For if it is the case that the process of cooperation represents the principal means by which solidarity is achieved and an adequate level of social integration maintained, the direction which the process takes depends critically upon the nature of systems constraints operating at the level of the enterprise as well as upon the nature of social constraints operating at the level of actors within their occupational groups. It is of particular concern to us, therefore, to locate the cooperative process, as the main instrument of control, within parameters at the levels of system and actor and to trace the direction of change in

(15) Ibid p.54

(16) On this point see, for example, L. Coser "The Functions of Social Conflict"
Routledge and Kegan Paul and The Free Press, 1956.

(17) See Part II of this thesis

the pattern of bargaining as the result of pressures from above (systems constraints) and from below (social constraints).

It should be noted that the expanded model of the control system described in the previous paragraph is analogous to the use of coalition models of the organisation introduced in the first chapter by reference to the work of J.A.A. Van Doorn⁽¹⁸⁾. It was noted there that the mode of social integration in the business enterprise is similar in some respects to that of the political coalition where interdependent groups enjoy a much higher degree of functional autonomy that would be characteristic of sect types of organisations (i.e. religious or political organisations). Interactions between these groups assume the form of continuous bargaining and the result is an inevitably imperfectly integrated social system.

We can also refer to the theory of organisational decision-making developed by Cyert and March, a theory which also utilises the concept of the organisation as a coalition.⁽¹⁹⁾ These writers are particularly concerned with the process by which organisations make decisions. They are equally concerned with the inadequacies of theories of individual choice - inducements/contributions theory, for example⁽²⁰⁾ in explaining this process. Initially they note:

"Organisations make decisions. They make decisions in the same sense in which individuals make decisions: the organisation as a whole behaves as though there existed a central co-ordination control system capable of directing the behaviour of the members of the organisation sufficiently to allow the meaningful imputation of purpose to the total system."⁽²¹⁾

(18) J.A.A. Van Doorn op.cit. pp.111-130

(19) R.M. Cyert and J.G. March "A Behavioural Theory of Organisational Objectives" in M. Haire ed. "Modern Organisation Theory" 1967 Wiley

(20) See, for example, H.A. Simon "Administrative Behaviour" Macmillan 1947.

(21) R.M. Cyert and J.G. March op.cit. p.76.

Nevertheless, whilst it is true that business organisations include individual participants with differing preference orderings who, through bargaining, enter into a coalition agreement which specifies a joint preference ordering for the coalition, it is the case, they argue, that a joint preference ordering is not a particularly good description of actual organisational goals, or of the process by which organisations take decisions. Thus whilst the objectives of the coalition are determined by bargaining there is no assumption that such agreements can be readily transposed into anything other than vague and sometimes ambiguously shared objectives. The process of determining the objectives of the coalition, however, is considered from three major aspects:

"The first of these is the bargaining process by which the composition and general terms of the coalition are fixed. The second is the internal organisational process of control by which objectives are stabilised and elaborated. The third is the process of adjustment to experience, by which coalition agreements are altered in response to environmental changes."⁽²²⁾

On the nature of the bargaining process, Cyert and March clearly reject the view that organisational goal specification is somehow the sole preserve of the entrepreneur who pays his employees the appropriate price for their adoption of the "organisation" goal. Such payments may take the form of monetary exchanges; significantly though they may also take the form of policy commitments binding upon both parties to the bargain. Increasingly, they claim, labour unions demand "side payments" in the form of such policy commitments, thereby entering into the area of managerial policy-making. It is in this sense that the concept of coalition becomes the relevant instrument for considerations of the organisational decision-taking process.

On the stabilisation and elaboration of coalition objectives they refer to the means by which the bargaining process becomes institutionalised.

(22) R.M. Cyert and J.G. March op.cit. p.79.

These take two forms. The first is the existence of mutual control-systems which imply some element of reciprocity in control between superiors and subordinates. The second is the existence of precedents which:

".....remove from conscious consideration many agreements, decisions and commitments that might well be subject to renegotiation in an organisation without a memory. Past bargains become precedents for present situations.....As a result of organisational precedents, objectives exhibit much greater stability than would typify a pure bargaining situation."⁽²³⁾

Finally they note that whilst the demands made upon coalitions are stabilized in these ways, they are also influenced by the changing expectations of individual members, expressed in the form of current aspiration levels based upon the past achievement and the past aspiration history of the individual himself and his reference group. In this context Cyert and March refer to the interrelationships between changes in the environment of the organisation and changes in the aspiration levels of members. Environmental changes operate to determine the flow of resources to the organisation, thereby determining the incidence of bargaining. Thus:

"When the environment outruns aspiration-level adjustment, the organisation secures, or at least has the potentiality of securing, resources in excess of its demands.....The excess resources would not be subject to very general bargaining because they do not involve allocation in the face of scarcity.

but:

"When the environment becomes less favourable, organisational slack represents a cushion. Resource scarcity brings on renewed bargaining and tends to cut into the excess payments introduced during plusher times."⁽²⁴⁾

(23) Ibid p.84

(24) Ibid p.86

Moreover the demands of the enterprise environment represents but one set of constraints at work here. The notion of the "attention-focus" of members of organisations suggests that individuals are sensitized to make particular demands upon the organisation at particular times: The number and variety of these depends upon their involvement in work and on the demands of their other commitments. The notion is an interesting one since it:

".....suggests one reason why organisations are successful in surviving with a large set of unrationalised goals. They rarely see the conflicting objectives simultaneously.....The sequential attention to goals is a simple mechanism. A consequence of the mechanism is that organisations ignore many contradictions that outsiders see as direct contradictions. They are contradictions only if we imagine a well established joint preference ordering or omniscient bargaining. Neither condition exists in an organisation."⁽²⁵⁾

It is our contention that the concept of coalition characterises the nature of social integration and the dynamics of the control process in industrial organisations much more exactly than alternative conceptualisations based upon the exclusive use of either order of conflict theories, functionalist or social action frameworks. In this sense the elements of coalition theory presented above provide the basis of a more realistic framework for the analysis of control and social integration in the business enterprise; in this sense also they reinforce our previous comments on the need for a distinctive frame of reference drawing upon various theoretical perspectives in an integrated way for the investigation of these processes. Thus it seems necessary to approach the problem of control in ways which emphasise the following factors as these are illuminated by the concept of coalition:

- (a) The multilateral nature of job and work control in industry. The assumption that the balance of power is inevitably a shared balance of power (though in varying proportions in different organisations).

(25) Ibid p.87

- (b) The pivotal role of bargaining as a key area of goal determination of organisational objectives.
- (c) The stabilisation of the control process as the result of the existence of shared interests and values of all coalition members, some of which may be codified.
- (d) The stabilisation of the control process as the result of the coalition exhibiting a distinctive pattern of conflict between members.

Typically, coalitions exhibit "criss-crossing" conflict patterns: different occupational interest groups bargain separately with management sequentially in industrial coalitions. Moreover, as we have seen, their demands may differ. In this sense it is difficult to talk of a joint preference ordering of all participants; "united fronts" embracing all employees rarely develop. Consequently coalition conflict patterns function to enhance the stability of control. Moreover, not only is conflict exhibited segmentally in coalitions, but it is also utilised by members instrumentally and rationally to apply pressure to the pursuit of individual interests without permanent disruption of the coalition. Conflict which permanently disrupts is a possibility, but is the exceptional case rather than the norm in industrial coalitions. As Van Doorn puts it:

"There is.....a connexion between the units whose parts enjoy a considerable measure of functional autonomy - the coalition model - and a rational type of conflict."⁽²⁶⁾

- (e) The location of the process of control within parameters defining the direction of coalition agreements in terms of changes in the flow of resources to the organisation from its environment (systems constraints) and changes in the expectations of actors who are members of the coalition (social constraints). These parameters were described in

(26) J.A.A. Van Doorn op.cit. p.118.

detail in the previous chapter. The location of the control process conceptually as a key tool for the analysis of the interrelationships between the processes of systems integration and social integration: thus the mode and relative stability of internal enterprise control in defining the pattern of cooperation which exists between members of an industrial coalition, and, thereby, the form of social integration, has crucial implications for the ability of the enterprise as a whole to meet its system requirements. This suggests that there may be appropriate forms of control for industrial units in particular market, technical and social contexts.

- (f) The emphasis placed upon the process of cooperation as the major stabilising element of social control systems. Such systems, as we have seen, consist of both centrifugal and centripetal processes; the concept of cooperation provides the means of interrelating them. Thus the process defines the minimum set of common values shared by all coalition members necessary to permit the industrial organisation to maintain itself in existence and to adapt effectively to change; at the same time it defines the divergent interests of individual coalition members and the means which they select to secure their personal objectives. Since, however, the attainment of these objectives is dependent upon the joint working relationship implied by the concept of coalition, the character (and the changing character) of the process of cooperation emerges as the crucial area of analysis in the investigation of the influences upon the stability of control.

With these comments we conclude our remarks on the interrelations between the nature of solidarity and control in the industrial enterprise. It remains now only to offer some observations upon the interrelations between the nature of power relations and the stability of control in these institutions.

2. POWER RELATIONS AND THE STABILITY OF CONTROL

In the first chapter the relevance of conflict theory for the analysis of industrial relations was briefly considered. The inevitability of conflict over the performance of functions was recognised, as was the concomitant existence of power relations in social systems characterised by the interdependence of roles but also by the freedom of coalition members to contest the control of work activities establishing the form of interdependence. In this sense the utilisation of power by coalitions carries important implications for the stability of control; it is to this problem that we now turn.

Initially it seems pertinent to our discussion to counter the suggestion implicit in much contemporary conflict theory that the presence of different interest groupings within the enterprise necessarily results in the use of power to further objectives at variance with those of management. This argument, typically invoked as a critique of normative theories of industrial order, implies the view that the determination of behaviour is resolved by compulsion and that power becomes a crucial variable in this process. The ability to coerce provides the real basis upon which managerial authority is seen to rest. The recognition that workers' interests are not identical with those of management, and that workers' interests can and do conflict with managements' need not, however, prevent these parties from distinguishing areas of mutual interest suitable for joint decision taking. Indeed the assumption that the elements of conflict must necessarily overshadow the ability to cooperate and the existence of shared values between workers and management seems unwarranted in the light of the previous discussion on the nature of industrial coalitions.

At the same time it seems necessary to counter the arguments of other theorists, notably those encapsulated within the Neo Human Relations School, that "power equalisation" - where reductions in power and status differentials between supervisors and subordinates occur as the result of managerial

strategies to induce changes in employee attitudes in line with its own requirements - offer a more realistic conceptualisation of the use of power in contemporary industrial institutions.⁽²⁷⁾ In essence, both the approaches of the conflict of interest and the power-equalisation schools are necessary, but inadequate, contributions to the debate on the nature of power relations in industrial relations in modern society. For whilst it is undoubtedly true that some form of conflict is endemic in industrial behaviour, and that management is continuously required to legitimise its authority by techniques of persuasion and incentive, both sets of theories provide inadequate explanations of the uniqueness of the industrial situation: the fact that industrial coalitions consist of integrative and disintegrative processes and that industrial relations encompass both conflicting and converging goals. Since the problem is inadequately formulated, it follows that the conceptualisation of the uses of power in these theories is also misleading.

We have already referred to one source of confusion in the first chapter. This concerns the treatment of power in terms of a zero-sum or "fixed-pie" model. This has been defined by Lammers in the following terms:

"Those who earn less and have less status and less say in organisational policy than others will always be inclined to suffer, if not absolute, then at least relative deprivation. Therefore - so these critics apparently argue - the limited supply of power, prestige and income is for now and evermore a potential bone of contention."⁽²⁸⁾

It is this approach which is referred to by Parsons as:

"the dominant tendency in the literature.....that there is a fixed "quantity" of power in any relational system."⁽²⁹⁾

(27) On the concept of "power equalisation" see G.Strauss, op.cit. On forms of power allocation in this context see R.Likert "New Patterns of Management" McGraw-Hill 1961.

(28) C.J. Lammers op.cit. p.202

(29) T. Parsons "On the Concept of Political Power" Proc.American Phil.Soc. 1963 107, pp.232-262

and it is to the question of whether power should be viewed as a fixed or as a variable resource that the work of Arnold Tannenbaum becomes relevant to our enquiry.

Tannenbaum is concerned with the characterisation of organisations in terms of their patterns of control. The concept of control is used synonymously with the notions of power and influence and is defined by him as:

"a process in which a person or group of persons determines, that is, intentionally affects, the behaviour of another person, group or organisation."⁽³⁰⁾

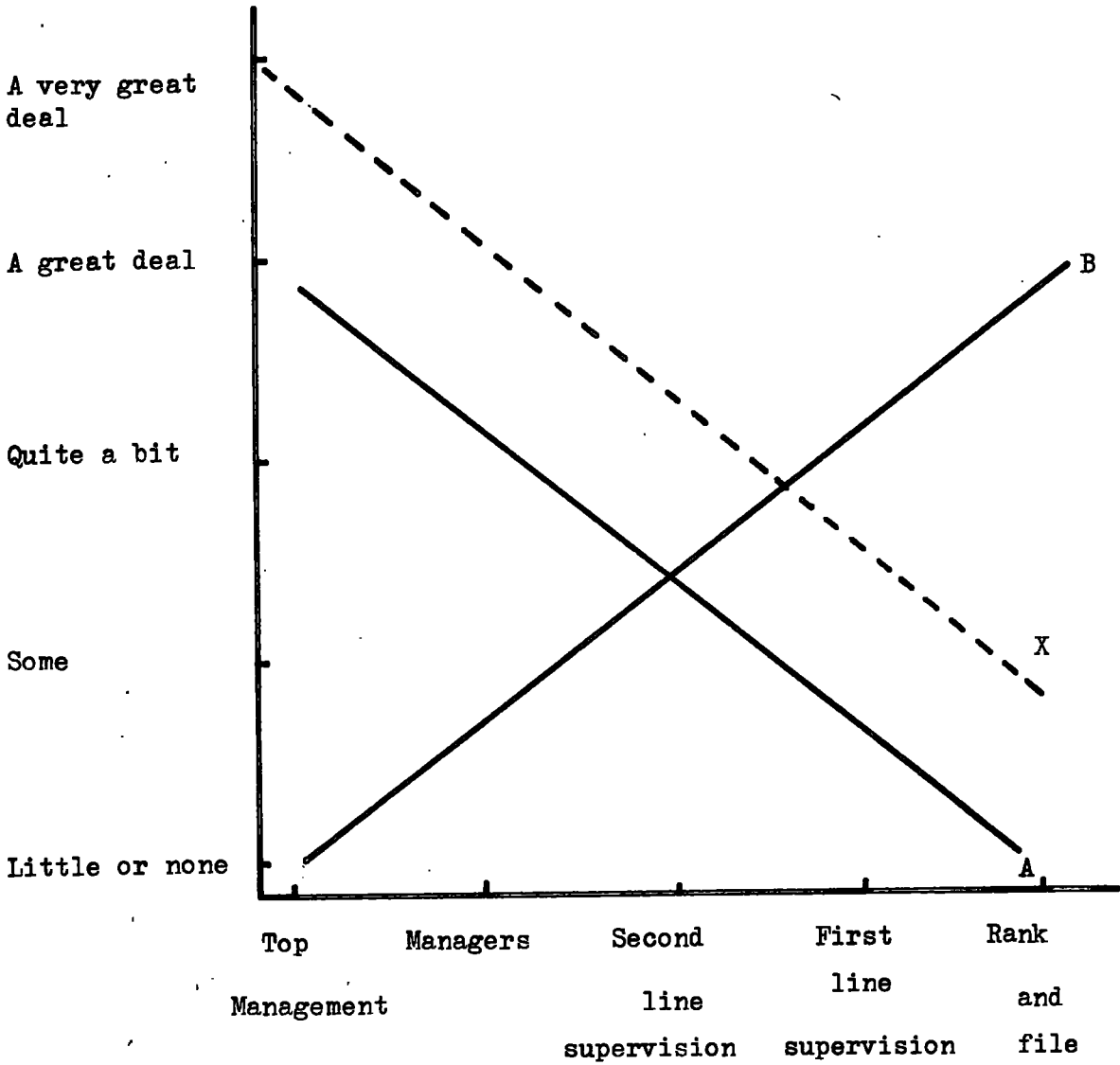
In this sense the control process is represented by a cycle beginning with an intent on the part of one person, followed by an attempt to influence another person who then acts in some way that fulfills the intent of the first. What distinguishes Tannenbaum's conception of control from traditional analyses of the process is the notion that, in important respects, effective control requires the mutual exercise of power by all participants and that the mutual influence of members will be enhanced, to the benefit of both individuals and the total organisation, by the expansion of power available to all groups within the organisation.

The two major aspects of control which Tannenbaum seeks to interrelate, namely the distribution of control in organisations and the total amount of control exercised by all levels of the organisation are expressed in a "control graph" (Figure I). The horizontal base of the graph represents the hierarchical scale in an organisation, and the vertical axis the amount of control exercised by various hierarchical echelons. It is possible to define differing control curves by reference to shape and height, where organisations differ both in the amount of control exercised by various

(30) A.S. Tannenbaum "Control in Organisations" McGraw-Hill 1968 p.12

Figure I: Some hypothetical distributions of control.

Amount of control exercised



Source: Tannenbaum 'Control in Organisations' (McGraw Hill 1968. p. 13.)

echelons and in the total amount of control available within the organisation. Thus a control curve which rises with hierarchy is "autocratic" and one which declines with ascent is "democratic"; a low flat curve which indicates little control at any level indicates a "laissez-faire" situation while a high flat curve indicating a high level of control at all levels is "polyarchic".⁽³¹⁾ Finally, the use of the "control graph" technique permits the exploration of new measurements of control based upon the judgements of members regarding the amount of control which various echelons actually hold as against the amount desired.

Given these aspects of control for consideration, how are they applied? Primarily Tannenbaum is concerned to point up the interrelationships which exist between control, organisational effectiveness and the attitudes of members towards the organisation. Whereas the focus for much recent enquiry has been upon the distribution of control and organisational effectiveness⁽³²⁾, the relevance of total amount of control has been relatively ignored, or has proceeded on the assumption that increasing the influence of one group implies decreasing the influence of others. In response to this kind of argument, Tannenbaum raises the question of why substantial control exercised by both leaders and members would not enhance effective organisational performance. Curve X (Fig.I) illustrates the implications of the joint expansion of influence of both upper and lower echelons, by comparison with curve A which represents a traditional hierarchical distribution of control and curve B which represents a "dictatorship of the proletariat".

(31) See C.G. Smith and A.S. Tannenbaum "Organisational Control Structure: A Comparative Analysis" Human Relations Vol.16 No.4 1963.

(32) In this context he cites the work of N.C. Morse and E. Reimer "The Experimental Change of a Major Organisational Variable" Journal of Abnormal and Social Psychology LIII Jan. 1956 pp.120-29.

As Tannenbaum puts it:

"It is amusing to think of this controversy in terms of a dialectic in which curve A represents the thesis of oligarchy and the antithesis, curve B, the dictatorship of the proletariat.....Many organisation leaders, indeed, have seen a haunting specter in participative schemes, because, committed as they have been to a fixed-pie, conflict view of power, these leaders could envision such schemes only as implying some degree of "revolution". A possible synthesis in the dialectic, curve X, has therefore been overlooked by most managerial persons, as well as by many organisation theorists."⁽³³⁾

It follows that one possible source of stable control in industrial organisations may be located in devising means by which the influence of lower echelons is increased in ways which do not imply corresponding contractions in the influence of managerial groups. It is this situation which is characterised by curve X. It is this situation also which, we believe, facilitates the process of cooperation outlined in the previous section of this chapter.

The existence of high mutual influence, by promoting social integration among members, is thus seen to enhance organisational effectiveness. Specifically, effectiveness is enhanced by increasing the degree of total control in the organisation in ways which produce a more stable system of control, since a positive correlation appears to exist between the amount of control, organisational performance and the loyalty of members⁽³⁴⁾.

Two examples of this interrelationship may be cited. Lammers suggests that granting more power to subordinates to participate in decision-making may increase the joint power of all echelons in that subordinates may be more willing to implement decisions so reached; the initial ceding of power

(33) A.S. Tannenbaum 1968 op.cit. p.13.

(34) L. Lammers, G. Smith and O.N. Ari "Organisational Control Structure and Member Consensus", American Journal of Sociology Vol.LXIX No.6 1964 pp.623-638.

by management facilitates the more effective integration of individual goals as well as increasing the chances of managerial decisions being implemented.

(35) Elsewhere Smith and Ari have noted that the effects of increased total control on organisational performance may derive in part from the uniformity in organisational standards and policies which such patterns of control impart. Thus they claim:

"Our findings indicate that this is a tenable explanation for the effects of control upon organisational performance which we have found.....The significant exercise of control by both members and leaders leads to a high degree of identification and involvement in the organisation. All organisation members are motivated to develop a set of shared policies and practices, to accept jointly made decisions, and to act on behalf of the organisation. The system of high mutual influence which this pattern of control signifies provides an opportunity for members and leaders to reconcile their interests and facilitates an atmosphere of cooperation." (36)

Clearly, what is being implied here is not mere "democratic" control. Whilst members desire a more positively sloped distribution of control, typically Tannenbaum's respondents did not wish to achieve this by reducing the control exercised by other levels. Indeed this writer suggests that the accumulation of influence at one level of the hierarchy would impede high organisational performance since it is only under conditions of high reciprocal influence that a shared system of organisational norms associated with high performance and concerted action appears.

It is in order to assess the extent of this reciprocity that Tannenbaum introduces as one application of the control graph technique the measurement of members' judgements of existing and desired patterns of control in organisations. Not surprisingly the majority of organisational units studied

(35) C.J. Lammers op.cit. p.204

(36) C. Smith and O.N. Ari op.cit. p.638

by Tannenbaum exhibited negatively sloped control curves implying hierarchical control. These actual patterns of control, however, failed to correspond with the ideal patterns desired by members. Whilst the ideal pattern of control is more positively sloped than the actual, and the ideal level of control is higher than the actual level, it is not typically the case that members wish to reduce the amount of influence exercised by other groups, even at the level of rank and file members where the greatest discrepancy between actual and ideal patterns of control exists. On the contrary, Tannenbaum finds that the increased control desired by rank and file members is usually accompanied by an increase proposed by them for upper levels too.

These considerations have clear implications for the stabilisation of control systems. Tannenbaum's assertion is that there is a positive relationship between the total amount of control, the level of morale of members and the overall effectiveness of the organisation. If this is accurate it would be necessary to consider the extent to which control systems in particular organisational contexts afford substantial mutual control to be exercised by both "leaders" and "followers". Given the existence of high reciprocal influence, moreover, it would be possible to speculate upon the direction of control taken in consequence. Given, finally, our contention that important decisions concerning the goals of industrial organisations are taken increasingly by coalitions of members, the utilisation of power in ways which permit the development of such patterns of reciprocal influence must be regarded as one possible source of stability highly appropriate in these conditions.

The expansion of power along these lines, however, must not be taken to imply that conflicts of interests between participants will not continue to exist. The existence of latent conflict between participants is an inevitable consequence of any attempt to organise cooperation in situations of technical and economic complexity, and may manifest itself as structural conflict involved in the organisation of roles, conflict over the allocation

of scarce economic resources or over the power to influence events, or conflict arising from a protest against monotonous work⁽³⁷⁾. It seems necessary, therefore, to relate the process of conflict to the concepts of cooperation and power on the one hand, and to the concept of occupation on the other. The interrelationships between conflict, power, and cooperation indicate the nature of expanding power relations in industrial coalitions consistent with a stable system of control and with the pattern of conflict exhibited within social systems characterised by a relatively high degree of functional autonomy of their parts. The interrelationships between the process of conflict and the concept of occupation are indicated by the nature of controls over work where:

"An occupation consists, in part, of a successful claim of some people to licence to carry out certain activities which others may not, and to do so in exchange for money, goods or services. Those who have such solidarity will, if they have any sense of self consciousness or solidarity, also claim a mandate to define what is proper conduct of others towards the matters concerned with their work."⁽³⁸⁾

The development of occupational strategies in pursuit of enhanced status and control over work necessarily complicates the operation of the control process; regarded in this light industrial relations assume a complexity sometimes ignored by those who assert a simple dichotomy between management and labour. The value of occupational analysis, therefore, is found in the examination of the pattern of shared and conflicting interests characterising the interactions of diverse groups within the occupational structures of complex organisations. In this way it is by no means inconsistent to argue that a degree of homogeneity induced, for example, by shared orientations to work and common experiences of the work situation can coexist with a degree of inter-occupational conflict arising from disputes over the control of

(37) T. Lupton "Management and the Social Sciences" Hutchinson 1966.

(38) E.C. Hughes "Men and their Work" Free Press, 1958 p.78.

contested areas of work and over the allocation of scarce resources between occupations. Nor is it inconsistent to argue that a degree of homogeneity in values between management and labour induced, for example, by the expansion of power within an organisation along the lines suggested above can coexist with continuing conflict over the control of contested areas of work and over the allocation of scarce resources between these groups.

What seems to be required at this juncture is a more effective conceptualisation of the conflict process as it operates within industrial organisations. Fortunately the basis of this exists in the use of three concepts already introduced. These are the concepts of functional autonomy, coalition, and cooperation. The relevance of these referents may be briefly described.

Initially it should be apparent that power relationships will be inevitable in situations of functional interdependence, situations characteristic of the organisation of social systems involving the integration of the parts of the system in relation to certain formally specified goals. Industrial organisations constitute a distinctive type of social system in which the mode of social integration is defined by the relative autonomy of its major interest groups. Given that the process of system integration is concerned with the integration of functions (tasks) and the process of social integration is concerned with the integration of actors performing these functions, the problem of conflict in industrial organisations is best viewed as the outcome of a continuous process of defining and redefining who does what in work, and for what reward. This latter process constitutes the process of cooperation, and it occurs, as we have seen earlier, within what we have described as industrial coalitions. The implications of discussing the existence of industrial conflict in this context are important; it suggests that traditional conceptualisations of authority in industry based upon a predominantly unilateral model of managerial control are erroneous, and that attention would be more fruitfully directed towards the mutual

interdependence of management and labour. However, in emphasising the development of the joint power between two or more participating groups in the process of industrial rule-making, there is no suggestion that the uses of power by one group may not be used to limit the implementation of the purposes of another, and thereby to conflict with it. In this sense conflict is intrinsic to the structure of industrial organisations.

It is equally apparent that the pattern of conflict within such coalitions will assume a distinctive form. Typically it will function to effect some kind of solution to the problem of the allocation of scarce resources to competing groups whether in terms of wealth, time or effort; as such, and given the dependency of all groups upon the survival of the organisation, it will operate within limits which stop short of its destruction. Moreover, the pattern of conflict is unlikely to be simply dichotomous between management and labour, but criss-crossing to diversify the labour-force into a variety of competing and conflicting interest groups in ways which function to stabilise the overall control of the industrial organisation by preventing the development of a homogeneous labour movement encompassing, for example, both skilled and semi-skilled employees, white and blue-collar workers. Finally the expression of conflict in industrial coalitions may be influenced by the stabilisation of the control process along lines which permit the extension of bilateral control into new areas of joint concern. Indeed the stabilisation of control implies the progressive development of industrial rule making in this way. The institutionalisation of relationships between management and labour, however, is best viewed as a dynamic process, and one which is always incomplete. As certain issues become codified and subjected to joint determination, new issues arise and become the new focus for the exercise of power and the subject of conflict perhaps before compromise is inevitably reached in the process of conjunctive bargaining. In these ways the interrelations between the uses of power, conflict and cooperation are demonstrated and rehearsed by members of coalitions in an almost ritualistic fashion.

3. SYSTEM, ACTOR AND CONTROL: A SUMMARY

In this section we shall summarise the argument developed during the first three chapters. We shall indicate how this argument can be applied to the analysis of the control process in one industrial organisation. This study will be presented in the second part of the thesis.

We have sought to outline the dimensions of a sociological framework for the analysis of industrial relations. These dimensions were derived from the perspectives of existing sociological theories of order, conflict and social action, theories frequently posed as contending frameworks, but capable in our view of integration in certain important respects.

These points of integration were posed principally in the discussion of the relevance, for problems of industrial relations, of two important but frequently confused themes in Industrial Sociology. These themes are those of the nature of systems integration and social integration in industrial organisations. In seeking interrelationships between the operation of these two processes, an analytical framework was established which drew heavily upon sociological theory. This framework was applied especially to the problem of control of industrial organisations.

The analysis of systems integration was directed towards the problem of controlling the overall adjustment of the total organisation to the demands of its environment and towards the related problem of controlling the pattern of interdependencies between the major functions of the organisational system. Such functions as the division of labour, the system of authority, the technology, the system of rewards and status etc. may be evaluated in terms of their systemic qualities: that is in terms of the appropriateness of their interrelations for the performance of the organisation and the attainment of its business objectives.

The analysis of social integration was directed towards the problem of controlling the adjustment of actors to the demands of the total organisation and its functional requirements, and to each other. Just as it seems

possible to speculate upon the determination of an appropriate pattern of integrating functions within a system faced with particular environmental constraints, so it seems necessary to expect an appropriate mode of social integration of actors performing these functions, given the nature of the system of functions and its requirements and given the interests of actors within their social and occupational contexts.

Not surprisingly then we find the process of control operating at both levels of analysis. The process of systems control implies the management of the organisation's overall adjustment to changing market, budgetary and technical contexts and the determination of the optimal pattern of functions for economic performance within constraints set by the business environment. Social control implies the management of actors and their interests in ways which permit the maintenance of a form of social integration compatible with the continued existence of the organisation. The linkage between systems and social control is thus seen to be a reciprocal one: the strain towards achieving the objectives of systems integration places inevitable constraints upon the latitude of actors pursuing their own interests within the organisation; at the same time, the objectives of system integration, namely the optimisation of functions, is achieved in no small part by the effectiveness of the system of social integration which is found to exist.

In important respects, therefore, the problem of control in industrial organisations is best discussed as the outcome of an interplay between the requirements of organisational system and its environment on the one hand, and the requirements of organisational participants and their environments on the other. Consequently changes in the nature of demands made upon the system or in the nature of the expectations of the actors will be reflected in the nature and stability of the control process.

It was within this framework that we moved towards an explanatory framework which utilised and brought together aspects of various types of sociological theory in the balanced discussion of problems of industrial relations. At both levels of analysis, various concepts which reflected this concern were introduced and analysed. The need for theoretical integration arose mainly from two unresolved problems: the first at the level of systems integration and the second at the level of social integration. The solution to each was found in the use of "bridging" concepts which successfully integrate aspects of otherwise contending frameworks of analysis.

At the level of systems integration we were concerned to illuminate the concept of organisation itself in ways which emphasised the simultaneous existence of integrating and diversifying forces and indicated the manner in which interdependence and contradiction necessarily inhered in such situations. Thus Gouldner's concept of functional autonomy was introduced to illustrate the dual functions of "organisation" itself: to interrelate parts but also to separate them and to preserve their relative autonomy. In this sense the process of organisation necessarily promotes contradictions in the achievement of its primary objectives: order, predictability and coherence.

At the level of social integration we were concerned to conceptualise the interrelationships between the shared values and divergent interests of individual participants and groups of actors employed in industrial organisations. The concept of "cooperation" was introduced to define an important process of control in which interest groups secure their objectives within a joint working relationship. In this sense the independence of any one party is always seen to be conditioned by its dependence upon others; this joint relationship is based upon necessity. It is the coexistence of shared beliefs about the conduct of industrial relations (and about other aspects of the employment situation) with the

persistence of conflict over the attainment of individual interests which characterises the process of social integration in industrial organisations, and which requires some degree of theoretical integration between order and conflict perspectives for its analysis.

The cooperative process was located, however, within a distinctive structure of control. This required the introduction of a related concept: the coalition model of organisation. Based upon the notion of the organisation as a plural society and upon the manner in which decisions are taken within coalitions by bargaining, this concept illuminates the processes by which mutual control-systems function to determine organisational objectives in important areas and the pattern of conflict typically associated with the existence of industrial coalitions.

Our primary concern with the nature of the control process extended, however, beyond its location within the parameters of systems and social integration, and, in the case of the latter, beyond its location within the industrial coalition of management and labour. Thus we were concerned also with the problem of the stabilisation of control: the enduring qualities of industrial relations in spite of change. In this context we suggested that the extension of cooperation represented a principal means by which solidarity was achieved and an adequate level of social integration maintained. The extension of cooperation is thus seen to be one important determinant of stability in social control. By this we refer to the extension of bilateral rule-making between management and labour over the control of work, or to the existence of agreement between these parties on the right of one to take unilateral decisions concerning the other.

A second determinant of stability in social control was the expansion of power at the disposal of organisational participants in ways which increase their mutual influence in the determination of the control of work. Effective social control is enhanced under conditions where the joint power

of all parties is expanded in mutually rewarding ways and where the scope for cooperation is thereby increased.

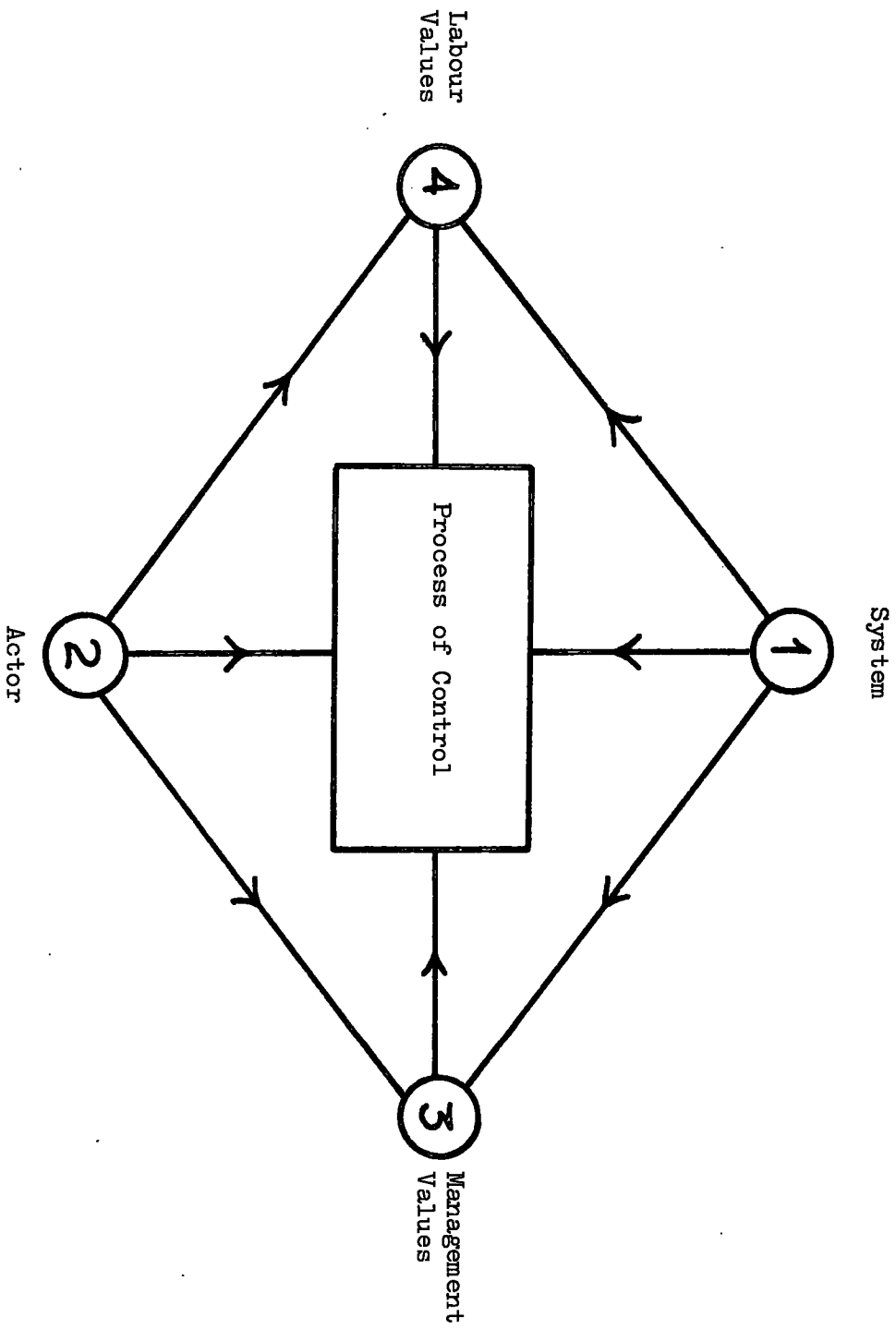
These arguments were intended not only to substantiate the case for a more informed methodological approach to the analysis of industrial relations in general, but also led to a discussion of certain substantive problems in this field, notably those concerned with the question of stability and change in the process of industrial control. It was our main conclusion that the most realistic framework for the analysis of problems of control was one which explained continuity and change in this process as a response to systems and social constraints, and that the conceptualisation of these constraints required some integration of functionalist, conflict and social action perspectives. The dimensions of this framework are indicated in Figure 2 overleaf.

This model locates the process of plant control within a field comprising four interacting and interdependent variables: system, actor, managerial and labour values. These are marked 1, 2, 3 and 4 respectively in Figure 2.

Given our concern with the determinants of stable systems of control in unit organisations, some final comments may now be made on the analysis of stability in the control process by reference to the Figure.

Initially it should be pointed out that the model consists of two major dimensions. The first dimension is a horizontal one, linking managerial and labour values directly to the control process itself, which, for analytical purposes, is located at the centre of the model. These values it should be emphasised, refer only to those held separately or jointly by employers (or managers) and representatives of labour (i.e. trade union representatives) in the control system (including the collective bargaining system). They do not encompass the values of rank and file employees. The second dimension is a vertical one, linking system requirements and actor expectations indirectly to the control process, and providing the

Figure 2: The Contextual Framework of Control in Industrial Organisation



central contextual features of the model. Examination of system requirements and actor expectations along this dimension would include consideration of the effects of the business environment of the system and the social environment (class, community and occupation) of actors upon the stability and effectiveness of control in the organisation. Whilst the first two variables - managerial and labour values - define the scope and content of the control process in the organisation over time, the second two - system and actor - define the parameters or constraints within which the control process must move if it is to remain effective and stable. The first and the most important implication of stable control systems is that their variability over time and their direction of change must be compatible with changing systems requirements of the organisation and changing social requirements of the actors involved. This is to say that industrial coalitions at plant level may take decisions at variance with system requirements and actors' expectations; to do so, however, will be to create an unstable and an increasingly ineffective system of control with increasing economic and social costs to the organisation and its members.

It follows that an effective system of industrial control exists where the inevitable fluctuations in the scope, content and organisation of the control systems of unit organisations, induced by changes in the attitudes and power positions of parties to industrial coalitions, nevertheless occur within bounds suggested by system and social requirements. A stable state of the control system exists where the separate, and sometimes conflicting interests of the members of industrial coalitions are maximised through cooperation within these boundaries. It will be seen, therefore, that the process of effective control represents a process towards the optimisation of the requirements of the system and its actors.

Some necessary points of clarification must now be made. First, there is no assumption that system and social requirements change at the same rate,

in the same direction, or at the same time. Consequently the parameters of control (variables 1 and 2) may be at variance. For example, actors may differ in their interpretations of the real state of the system at a given moment in time. They may make decisions which reduce the effectiveness of the organisation and increase its costs.

Second, there is the assumption that strain will exist between members of industrial coalitions, and that conflict will characterise certain aspects of the relationships between them, especially in the process of cooperation concerned with the determination of organisational objectives and the allocation of resources. Such points of tension will be inherent in management-union relationships and will frequently be institutionalised in the control process (i.e. the right to strike etc.) according to the value-systems of the parties concerned. Consequently strain exists between management and trade union bodies, and this will exhibit itself in the use of power for the achievement of sectional interests. The interactions between these groups (variables 3 and 4) occur at two levels of analysis. The first concerns interactions between these groups at a level external to the unit organisation, at national or industry-wide levels. The second concerns interactions between groups at plant level. It is further assumed that strain may exist between negotiating bodies at each level, or within trade union or managerial organisations at each level. The effect of this will be to create instabilities in plant control systems. This is to say that the organisation of control may be potentially conflictful, between different levels of industrial coalitions.

Moreover there is the assumption that the concept of industrial coalition extends beyond the notion of management and labour as monolithic entities. From management's viewpoint, its labour force of white and blue collar staff may well form a diversified group in terms of occupational status, influence and power. From the viewpoint of non-managerial groups management may well constitute an equally divided group. The significance of this is that the

extent to which these social divisions are generally accepted as legitimate by management and labour groups, as well as by individual actors, may well constitute a crucial aspect of stable control. Disruptions of traditionally held occupational status induced, for example, by shifts in the relative bargaining power of various groups are likely to lead to instability in plant control systems. The exploration of the value systems of different occupational groups within the plant labour force (management, white and blue collar employees at skilled, semi-skilled and unskilled levels) for continuities and conflicts in inter-occupational values represents an important aspect of the study of social integration in industrial organisations.

Fourth, there is the assumption that strain may exist between the members of industrial coalitions (variables 3 and 4) and individual actors (variable 2). This is an analytical distinction making possible the analysis of continuities and discontinuities in values held by members of industrial coalitions and by individual actors. Thus strain between 2-3 might arise as the result of the changing expectations of rank and file employees for participation in new areas of decision making traditionally reserved for management. Strain between 2-4 might arise through the reluctance of rank and file workers to accept the prescriptions of their trade union. In general terms, as we saw in Chapter 2, the analysis of employee orientations to work and occupation and the extent to which ideal expectations of work are realised in fact represent important considerations in any discussion of stable control.

It will be seen, therefore, that our model accommodates certain perspectives derived from key sociological theories in order to deal adequately with the concepts of continuity and change, consensus and conflict, system and actor in their application to problems of industrial control. The components of the model provide points of reference for the analysis of

the meaning of control and the stabilisation of the process of control. Ultimately, the achievement of a stable system of control (which implies an orderly process of change) depends upon the compatibility of the decisions taken by members of industrial coalitions with the system requirements of the organisations in which they are located, and with the social expectations of the actors who are required to legitimise the decisions of industrial coalitions. This should not be taken to imply that actors lack the volition to change the system. Clearly they possess this capability: organisational change is the product of human action. An effective, stable system of organisation, however, will exist only where the social requirements of actors and the system requirements are in adjustment, albeit temporarily. In the succeeding chapters which form the second part of the thesis we shall examine the determinants of stable control in one unit organisation: a medium sized plant in the North-East steel industry.

PART II

THE ANALYSIS OF CONTROL

CHAPTER IV

THE STABILITY OF CONTROL IN A NORTH-EAST COAST STEEL PLANT

In this chapter we shall commence the application of the model of control derived from Part I to the situation of one plant which we shall call Ironhill, located in the North of England and in the North-East Coast section of the Iron and Steel industry in this country. In terms of this model we shall seek to explain the existence of a relatively stable control process at the time of investigation in this plant. Where points of strain are detected, we shall seek to suggest outcomes for the control process.⁽¹⁾

Many features of the Steel Industry in this country might suggest a somewhat unstable system of control. The industry has undergone much change in post-war years. Structurally it has been subject to three major revisions in managerial organisation and corporate form (nationalisation, denationalisation, renationalisation); technological change has called for the renewal of plant and machinery and created the need for major revisions in working practices; the market situation of the industry has altered substantially. Yet, until quite recently, the industry as a whole has exhibited a comparatively low level of grievance activity in the form of strike activity between management and labour.⁽²⁾ The aim of this chapter will be to consider this phenomenon.

More specifically we argue that the influence of systems and social constraints have impinged themselves upon the industry in a unique way. Explanations of stable control, we suggest, will be found in the assessment of how these constraints have influenced the values of actors in the industrial

(1) See Chapters V and VI

(2) For statistics see page 147

relations system both in the past and at the present time. Consequently attention will be given to those influences which have combined to produce the present system of plant control in the industry and which have contributed to its relatively stable development. Consideration will also be given to some ways in which this system is currently faced with the need to adapt to change.

Our hypothesis is that the steel industry owes its stability to the particular form of control which has evolved over time. We are particularly interested in the form of control which exists in the North-East Coast section of the industry, and in one particular plant there. We are concerned to assess how far the traditional methods of industrial rule-making have endured despite changes in the nature of the systems and social constraints, and whether these influence the achievement of stable control. It is our belief that some features of the traditional system operate in this way, and that this fact could have important implications for the orderly transition of the industry in the future. In this sense it is necessary to consider the ways in which the traditional system sets limits on the shape of the future whilst acknowledging that the new features of control are emerging, such as the extension of bilateral control.

The model of control introduced in Part I directs our analysis in important respects. Attention is given to both the changing systems imperatives of the plant and the industry (variable 1 of the model), and to the expectations of white-collar and blue-collar employees constituting two main categories of actors in our analysis (variable 2). In this chapter we shall examine the nature of systems and social influences operating upon the industry as a whole, but more particularly upon the system of control at Ironhill. In the following two chapters (Chapters V and VI) we shall explore the process of social integration at Ironhill in greater depth by considering the attitudes of its manual and non-manual employees to employment in steel.

It must be admitted, however, that no attempt has been made to provide an exhaustive account of all factors contributing towards stable control in this plant. For example it was not possible to measure values of Ironhill's management in any formal sense. Consequently the views of at least one important category of employees in the plant system of control are unreported.

Nevertheless the data collected from most other sections of Ironhill's labour force is sufficient to indicate the existence of certain distinguishing features in attitudes towards steelwork and industrial relations and to illustrate the importance of considering these views in any discussion of the influences upon effective control systems. If the evidence is incomplete, therefore, it is sufficient to illustrate the scope of our model. In particular, it is hoped that in the case-study which follows some light can be thrown upon the following problems of interest to the Industrial Sociologist:

- (a) The extent to which joint goals exist between the members of industrial coalitions in steel and the operation of the cooperative process as this influences the stability of control in a steel plant.
- (b) The extent of sectional interests between management and labour, between white and blue-collar employees, and between white-collar employees as these influence the extent to which joint goals can be pursued and thereby to enhance the effectiveness of the control process as a whole.
- (c) The degree of status congruency between different occupational members of plant coalitions and the perception of occupational influence by employees as this influences the process of cooperation and the effectiveness of control.
- (d) The stabilising function of certain generalised features which typify the work situations of steel employees such as the seniority system, the "craft" status of semi-skilled work in the industry, the group organisation of work and the security of employment.

The intention throughout the case study will be to demonstrate the need for a sociological approach to the analysis of control, and to a conceptualisation of the process of integration in industrial organisations emphasising the

simultaneous existence of converging values and divergent interests between management and labour and between constituent groups of the labour force. The degree of stability and the degree of effectiveness of control systems is seen to rest heavily upon the extent and nature of common values interlinking key occupational groups, as well as with the mode of conflict regulation. It will be shown that considerable agreement exists at Ironhill between these groups on such matters as their joint response to such imperatives as external market, budgetary and technological constraints upon the plant. It will be shown also that value consensus exists to a marked degree on the organisation of industrial relations and the processing of conflict. Indeed, the strong preference for procedural rule-making and constitutional government of industrial relations has been long established. It will be shown finally that a high degree of consensus exists within the labour-force on the status distinctions between management and labour, between white and blue-collar workers, and between differing occupational groups within the manual worker group. At the same time the effects of inter-occupational and intra-occupational differences of interest at Ironhill will be discussed in order to direct attention to the limits of value consensus and to the potential strains of these conflicting interests upon the control process.

In terms of our model we explain the existence of such values as a function of both systems and social variables. It is to a discussion of the effects of these two contrasting sets of constraints upon the control process that we now turn.

1. THE CONTEXTUAL FRAMEWORK OF CONTROL AT IRONHILL

(a) Systems Constraints: The Socio-technical System and its Environment

Ironhill is situated in County Durham. Between 1864 and 1967 it produced first iron and then steel as an independent public company with the exception of a short two year period between 1949 and 1951 when it was nationalised. It was again nationalised in July, 1967 and has remained under public control to the present time.

The plant is best described as an integrated steelworks. In 1970 it produced 1 million ingot tons of steel; in the same year its payroll amounted to almost 6,000 employees. The major steel-making processes which will be referred to in Part II, and existing at Ironhill, are as follows:-

1. Iron Production: Blast Furnace Department

Ore, coke, limestone and other additives are charged into three blastfurnaces. Hot air burns the coke and separates the metallic iron which is tapped and transferred to the Oxygen Steel Plant. Coke is produced from coal in plant adjacent to the blast furnaces.

2. Steel Production: Oxygen Steel Plant

Steel production is from three Converters. The basic oxygen steel making process introduced at Ironhill in 1964 is a more economical method of production than the traditional British system of manufacture in open-hearth furnaces. Oxygen is injected on the surface of molton iron mixed with scrap. Production of one charge of ordinary quality steel takes 40 minutes compared with approximately 12 hours in the open-hearth furnace. On completion of the cycle, molton steel is teemed into moulds to make ingots for transfer to the Primary Mill.

3. Steel Processing: Rolling Mills Departments

These Departments comprise a Primary Mill, a Billet Mill and a Plate Mill. Ingots are received in the Primary Mill, reheated and passed through a high lift reversing mill from which either slabs or blooms emerge. Blooms are processed further in the Billet Mill to make steel billets, lengths of steel between 2" and 7" square. Slabs are passed to a plate mill where they are rolled into steel plates. The Plate Mill is relatively new and technically advanced commencing operations in 1960 on a "greenfield" site near the main works.

Steel plate and billets are the main saleable products manufactured at Ironhill. In addition there are brick works manufacturing refractories for use in the steel industry and elsewhere; there are also constructional and

welding departmentss fabricating steelworks units and steel pipe. These are located outside the main steelmaking processes and are not considered here.

MARKET CONSTRAINTS

Analysis of output shows that the overall increases in production of crude steel and steel products over the 22 year period 1946 - 68 concealed some wide fluctuations after 1958. Sharp reductions in output throughout the plant occurred in that year, in 1961-2, and to a smaller extent in 1966-67. The downswings of 1958 and 1961 indicate general recessions marked by abrupt changes in Government economic policy with subsequent effects upon the level of investment and more particularly upon the vehicle manufacturing industry. The later but smaller downswing in 1966 was indicative of the more traditional pattern of recession in steel: here the decline in economic activity is felt first by the rolling-mill departments whose dependence upon customers and whose vulnerability to market changes is far more acute than the iron and steelmaking sectors of the plant. All this suggests an overall increase punctuated by fluctuations induced by the cyclical character of demand for steel. Such a pattern has crucial implications for the business success of the works since the maintenance of high loadings upon plant is imperative if profitability is to be maintained.

These environmental demand constraints have a direct influence upon the production system and its technology. An integrated system of steelmaking consists of at least three sequential stages: ironmaking, steelmaking and rolling. All three share the same functional imperatives - high plant utilisation and the continuous operation of equipment. Marked demand fluctuations characteristic of the industry during the last decade are likely to induce particular difficulties at plants similar to Ironhill where large and sustained throughputs are vital to meet the high "break-even" point created by the relative cheapness of certain types of steel product. Moreover such environmental market conditions are likely to induce differentials in

plant rates of technical change. In the steelmaking sector the rate of technical advance has been profound. Here the relative savings on operating costs following the conversion to Oxygen Steelmaking have been considerable compared with the additions to capital costs which its installation involves. This suggests that decisions to invest in new plant in this sector are less likely to be influenced by purely market considerations since the total cost of production can be substantially reduced by technical changes only. In ironmaking and in steelrolling, however, savings on operating costs are much less spectacular when compared with the much higher capital costs. Immediate demand conditions are likely to influence investment decisions more than purely technical criteria.

So far we have described the effects of what might be called "normal" market forces upon the production system. Superimposing itself upon this traditional market situation of cyclical demand during the last decade, however, is a new pattern of market constraint with profound implications for the future of Ironhill and the entire industry. This pattern developed during the sixties as the result of declining international steel prices and increasing world steel surplus capacity together with the alarming growth of world competition and low cost rivals in the European Coal and Steel Community, Japan and the U.S.A. The immediate effects of these new market forces was to accelerate the introduction of technical change and to hasten the onset of massive rationalisation of steel production. The nationalisation of the industry in 1967 marked the commencement of this operation.

Where did Ironhill stand in all this? The first signs of a serious threat to the survival of the works appeared in a British Iron and Steel Federation report published in 1966.⁽³⁾ The findings of the Benson Committee, established by the Federation's Executive Committee to investigate the industry's current

(3) The Steel Industry. The Stage I Report of the Development Co-ordinating Committee of B.I.S.F., July 1966.

situation and its long term prospects, reflected the serious concern of British steelmakers with the swift deterioration in the international competitiveness of their industry. It called for widespread rationalisation of existing plant and a rapid increase in the industry's capacity.

By 1975, it was argued, total production requirements for common steel in this country would be 32 million ingot tons. This would be achieved mainly in six or seven mammoth integrated steelworks and in two or three non-integrated works. Five existing steelproducing areas were proposed for further large scale development: South Wales, North Lincolnshire, Teesside, North Wales and Scotland. The full exploitation of the potential efficiencies of the favoured sites was seen to be prejudiced unless at least some 9.0 million tons of steel produced at other sites was withdrawn to ensure maximum loading of new plant. Significantly, Ironhill was among those sites not scheduled for further development.

The message was clear. Whatever its short run cost advantages, the plant's size and output and its location some distance from a tidewater estuary and an ore quay all failed to meet the criteria set out in the Benson Report for the technical-optimum size of steelmaking units of not less than $3\frac{1}{2}$ million ingot tons with easy access to deepwater terminals and to output markets. For the first time in its history the plant was faced with closure.

This possibility appeared all the more unrealistic because a primary concern and a real achievement of Ironhill's management during the fifties and sixties had been to steadily increase the efficiency of its plant and manpower. By 1967 its Managing Director could boast:

"We are already making a cheaper ingot than anybody else. To produce ordinary steel, it costs (Ironhill) around £23 a ton compared with at least £24 or £25 in even the best conventional open hearth plants."⁽⁴⁾

(4) Newcastle Journal, October 1969.

The Company, he went on to argue, had a major role to play in the future industry simply because it was one of the most efficient in terms of production costs. Certainly for a Company which before 1914 had been the most profitable steelworks in the country and which between 1945-64 had invested in new coke ovens, three blast furnaces, a new power station, new primary and plant mills and a new steelmaking plant, the prospects for the future envisaged by Benson were grotesque indeed.

The industry was nationalised subsequently in 1967. The British Steel Corporation's first annual report defined its aims along lines which echoed the prescriptions of the Benson Report. The Corporation was to be:

- (a) Market-oriented, maintaining a commercial attitude to its operations in order to make itself stronger in the face of an increasingly competitive world market.
- (b) Cost-oriented, securing cost savings through improved technical efficiency, rationalisation of production facilities through the long term concentration of output in large units comparable with the most efficient overseas producers.
- (c) Productivity-oriented, increasing manpower utilisation through a productivity programme aimed at substantial economies in labour costs.⁽⁵⁾

In defining these basic objectives B.S.C. had to hand the combined operating results of the 14 companies subsequently nationalised. These results covering the period 1957-67 showed the extent to which the ratio of profits (after depreciation) to capital employed had fallen especially during the six year period between 1962-67. These results are shown in Table 1.

Table 1: Ratio of Profits (after depreciation) to Capital: Operating Results of 14 Public Steel Companies 1958-67⁽⁶⁾ (percentage)

<u>1958</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
17.3	6.6	4.8	7.3	6.7	3.8	1.9

(5) Annual Report and Accounts, British Steel Corporation, 1967-8 pp.5-8

(6) Annual Report and Accounts, British Steel Corporation, 1967-8 p.7

It was above all the need to secure much more profitable results than these that the Corporation set about its programme of rationalisation. Following Benson, the Corporation envisaged a much higher output of steel of 32 million ingot tons annually by 1975, and a much higher rate of investment of the order of £1,000 million by the same year. What is currently known of the Corporation's development plan is that three large existing integrated steelworks are proposed for an annual output capability of 7 million tons by 1976. These are at Port Talbot, Teesside and Scunthorpe. Two 10 million tons capacity steelworks will be built in addition during the period 1975-80. By comparison with this, Ironhill's present output of around 1 million tons annually pales into insignificance. Its future looks insecure. At best, according to one writer⁽⁷⁾, steelworks like Ironhill may lose their iron and steel making functions and spend the rest of their operating lives receiving slabs from major oxygen steel plants elsewhere. For Ironhill this would imply the loss of its most profitable sectors. At worst it could mean closure.

Thus the effect of these two sets of market forces - the first traditional and predictable in character, the second more recent and potentially malignant - must be seen as environmental constraints influencing the company's objectives and operating upon the organisation of the plant's socio-technical system of production and control. As we have suggested, the direction of investment was constrained by changes in the firm's market situation, as was management's ability to utilise its capacity to the full and so control production costs. In this sense the increasing stringency of market conditions imposed severe limitations upon managerial decision-making while the new technical optima of modern steelmaking imposed higher thresholds of size and capacity each year. In this sense it is also accurate to define

(7) K. Warren "Coastal Steelworks - A Case for Argument" The Three Banks

these external constraints as setting limits upon the range of variability of the component parts of the plant's socio-technical system, given the need to maintain an adequate financial return on capital investment.

On the other hand there is some evidence to suggest that in the case of Ironhill these variations were contained within the limits determined by external market requirements, so permitting an increasingly more effective adjustment of the plant to its changing market situation to be made. This is to say that the rate and character of technical advance, changes in the associated "work relationship structure" and the control of the interrelations between these parts were becoming sufficiently well managed during the last decade for Ironhill to show an increasingly favourable ratio of profits to capital employed. In terms of commercial success it became more, rather than less, viable. This was due in part to the increasing effectiveness of its systems integration as a production unit.

The performance of any production unit can be measured in two ways. First, by its profitability evaluated by the ratio of profits to capital employed. Second, by its productivity measured by an index of output produced over a given period. Data relating to Ironhill's performance in these respects is given below:

Table 2: Ratio of Profits (after depreciation) to Capital: Ironhill 1963-70⁽⁸⁾

Year	Profits*	Capital Employed**	Ratio of Profits to Capital Employed
	£'000	£ million	%
1963	-453	36,171	0
1964	890	35,920	2.5
1965	3,232	37,241	8.1
1966	1,571	34,090	4.1
April 1967	638	33,096	1.9
Sept. 1968	503	21,017	2.3
1970	1,670	25,038	6.6

(8) This table is derived from the Annual Report and Accounts of the Company for the years mentioned.

*Profits (or losses) are arrived at after charging depreciation but before charging interest on long term borrowings and taxation.

**Capital employed comprises share capital, reserves and long term borrowing.

These figures are somewhat higher than the results quoted in Table 1 for the years 1965 and 1966 and in line with that of 1967. By 1970 Ironhill's performance was attracting attention in the national press along the following lines:

"During the next decade British Steel Corporation will have to decide whether old steel plants like (Ironhill) can be kept going after 1985..... Workers and management at (Ironhill) are allied in their remarkable fight to stay alive (their profits show a return on capital of more than 10% this year). But if this fails then British Steel Corporation will have created a sickening social problem in a town totally dependent on steel - a problem British Steel Corporation must solve. (9)"

The point to be established is not that the average return on capital employed at Ironhill was necessarily adequate during the period between 1960 and 1970, but that after 1966 it moved to an above average position compared with other production units in the Corporation, so that by 1970 Ironhill's return of 6.6% compared favourably with the average Corporation return of 2.1%

This increasing commercial viability of the plant was achieved to a substantial degree by a marked reduction in the size of working capital required after 1967 together with a more effective usage of this capital reflected in improved productivity figures. Table 3 illustrates the extent of this improvement in two major departments of the plant: the steel-making plant and the plate mill, measured by changes in the numbers of personnel employed, average weekly man-hours worked and average man hours worked per ton of steel produced.

(9) S. Fay "Breath of Hope for Steel - Now the Men can Talk to the Bosses"
Sunday Times, 12th April, 1970.

Table 3: Changes in the Number of Employees, Average Weekly Man-hours Worked and Average Man Hours/Ton Steel Plant and Plate Mill, Ironhill, 1946-68.

Department	Year	Number of Employees	Average Hours Per Man Week	Man Hours Per Ton
Steel Plant	1946	505	48.84	3.15
	1968	225	39.75	.50
Plate Mill	1946	564	45.28	6.60
	1968	597	46.20	3.94

This evidence suggests that the improved efficiency of the enterprise as the result of its increased profitability and productivity reflects the degree to which the plant's system of technical, organisational and management functions were becoming more effectively integrated during the period under review. To the extent that changes in the firm's market situation imposed new demands upon this system we argue that the associated changes in the plant's internal organisation were sufficient to meet these demands and to ensure that the firm remained in a steady state as the result of its increasing profitability.

ORGANISATIONAL CONSTRAINTS

So far we have said little about the structure and character of the plant's internal organisation and its appropriateness for the commercial objectives and technical requirements of the firm. In order to do so we must now turn to the second component of the plant's socio-technical system: the "work relationship" structure of occupational roles created to meet the technical requirements discussed above. A breakdown of the occupational structure for the years 1966 and 1969 gives the results set out in Table 4.

It will be noted that in an earlier investigation of a Lancashire steel plant by Scott et al, differentiation between these major categories over time was attributed to technical change⁽¹⁰⁾. There the proportion of the
 (10) W.H. Scott et al "Technical Change and Industrial Relations" University of Liverpool 1956.

Table 4: Distribution of Labour Force by Major Occupational Categories
Ironhill 1969

Occupational Category	1969 %	1966 % change
1. Administrative, technical & clerical	17.9	-1.7
2. Skilled Manual	17.3	0.0
3. Production Workers	28.4	+6.6
4. Unskilled Manual	13.7	-5.7
5. Service Workers	22.7	+0.8
	100.0	

working force engaged directly on production had declined whilst the proportion engaged on maintenance, service and administrative work substantially increased. This investigation contained details of the division of labour by type of work in a large integrated steelworks of comparable size to Ironhill for 1953 as follows: ⁽¹¹⁾

Wage-Earners:

Production	43%
Maintenance	43%
Staff	14%
	<hr/>
	100
	<hr/>

Comparable data for Ironhill in 1969 was as follows:

Wage-Earners:

Production	35.3%
Maintenance/Service	46.8%
Staff	17.9%
	<hr/>
	100.0
	<hr/>

What does this data tell us about Ironhill's division of labour and its control, given that the organisation of these functions within socio-technical system appeared to correlate with increasing business success? Initially it

(11) Ibid p.44

is apparent that in spite of the technical changes which have taken place in recent years at this plant, largely "traditional" methods of organising the social division of labour continue in existence. Thus, in spite of a sizeable capital investment programme and the replacement of much old plant since 1946, the scale of management and administration remained relatively small, consistent with industries possessing "craft" technologies and concerned with unit production⁽¹²⁾. Comparison of Ironhill's ratio of administrative staff as a percentage of the total labour force with other industries demonstrates this position clearly as indicated in Table 5.

Table 5: Comparison of Administrative, Technical and Clerical Staff as a Percentage of the Total Labour Force in Major Manufacturing Industries with Steel (Ironhill) U.K. 1967⁽¹³⁾

	<u>Percentage</u>
All Manufacturing Industries	25.4
Chemicals	37.9
Metals	23.0
Engineering/Electrical	32.2
Shipbuilding	19.8
Printing	27.3
Vehicles	28.8
Steel (Ironhill)	18.6

This suggests an administrative structure at Ironhill in 1967 similar to that found in shipbuilding, an industry which leaves considerable discretion in the job and control of work to skilled craftsmen. Lack of standardisation of the product in ship construction limits the mechanisation of production: hence the heavy dependence upon craft skills, where about two-thirds of all manual workers are skilled.

(12) J. Woodward op.cit.

(13) Ministry of Labour Gazette 1967 for all industries mentioned except steel.

By comparison with shipbuilding the steel industry is more highly mechanised. Indeed one estimate placed the steel industry within the first four most highly mechanised British industries measured by the ratio of horse-power capacity per worker in 1951⁽¹⁴⁾. This relatively highly mechanised production system is typically located in large plants employing 1,000 workers or more. Moreover, the industry has a high capital/labour ratio. In this sense the industry has been described as "standing in the vanguard of technical and organisation progress".⁽¹⁵⁾ It is surprising, therefore, to discover that such a technically advanced industry was organised by a relatively small administrative group and maintained by a smaller group of skilled craftsmen than in other industries with comparably sized administrative groups at the time of the case-study.

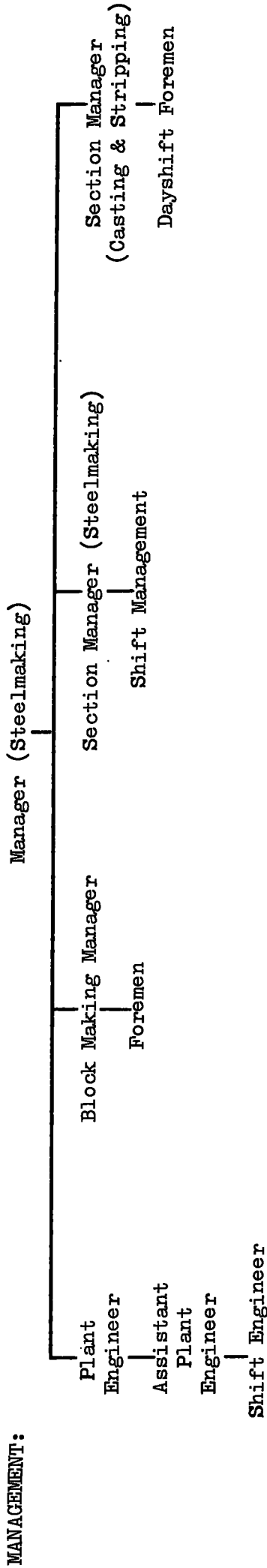
To explain this apparent contradiction, the character of production work must be examined. Process work in the Blastfurnace Departments, the Steelmaking Shops and the Rolling Mills is undertaken by skilled but technically non-craft labour organised into teams, and within teams into lines of seniority and levels of responsibility for different aspects of the total task discharged by the team. Whilst the effects of technical change have been to reduce the physical cohesiveness of work groups, the principle of promotion by seniority has been retained to provide a continuing basis for individual and occupational identification with work. Figure 4, for example, provides details of the organisation of management and production workers in the Steelmaking plant at Ironhill.

In this department there are five lines of seniority (A, B, C, D and E) providing five different routes of advancement for manual workers, all of whom commenced employment as labourers. The relatively light managerial and administrative labour force suggests that many aspects of job organisation

(14) J.A. Banks "Marxist Sociology in Action", Faber and Faber 1970, p.69

(15) Ibid p.85

Figure 3: Organisation of Management and Seniority Lines for Manual Workers, Steelplant, Ironhill



MANUAL SENIORITY LINES:

A	B	C	D	E
Vesselman Trainee Vesselman	Pitman 1st helper 2nd helper Fume Attendant	Senior Ladleman 2nd Ladleman 3rd Ladleman Scrap Attendant	Stripper Attendant Burner Stemmers Mould Cleaners	1 Uphill 2 Uphill Hot Metal Attendant Metal Checkers

L A B O U R E R S

and job control undertaken by specialists in other industries are performed by groups of semi-skilled and skilled labour under the supervision of charge-hands in steel. In this sense the steel operative in production departments can entertain occupational ambitions and has opportunities for self-realisation denied to many manual workers. Steelwork appears to offer possibilities of achievement and to provide for many of its manual production workers the possibility of a career not unlike that of many white collar workers. Consequently the seniority line functions as an important stabilising element in the system of control. It acts as an effective system of ranking, diversifying the labour force and providing a ladder of promotion sufficiently appealing to prevent the formation of a "lumpenproletariat" of steelworkers. This point was emphasised in the earlier study of a steelplant by Scott and referred to previously in this chapter. He writes:

"In general, therefore, while it is true that the reactions to a specific technical change are composed of a complex of many factors, we have found in the present instance that one - wages - seems to have predominated.....The predominance of the wages factor, however, should not lead us to overlook the fact that the seniority principle was an integral part of the context in which opinions on the wage change itself were expressed, even when reference was made to the new method of calculating tonnage earnings, and that in most cases a melter's evaluation of the over-all effect of technical change is best understood as an expression of satisfaction with its impact on wage differentials.⁽¹⁶⁾
(our emphasis)

In more general terms the stabilising features of seniority lines and the potentially disruptive effects of disturbing these lines have been referred to by Eldridge as follows:

"Sociologically, the potential effect of technical change is to challenge established patterns of behaviour which have traditionally been regarded

(16) W.H. Scott et al op.cit. p.245

as appropriate. In the industrial setting these behaviour patterns have been hallowed with the phrase "custom and practice". To disturb custom and practice by innovation is to disturb the authority structure and the nature of role expectations. This is particularly true in the steel industry, where the social organisation of the work has been relatively fixed. On the production side a number of promotion ladders are established within particular departments. Once on a ladder, a man cannot transfer to another ladder without starting at the bottom. Well developed job hierarchies with seniority of service as the regulating principle of mobility have meant traditionally that age, prestige-giving occupations, status and pay have been closely correlated. The plant bargaining process, as we shall see, reflected some of the stresses and strains that occur when these features move out of alignment."⁽¹⁷⁾

If Ironhill provides a relatively clear-cut method of allocating status to its manual workers by means of the seniority system, and of attaching men to steelwork, the strains which Eldridge refers to should not be overlooked. One disadvantage is the job-specific nature of production work in steel. With seniority, responsibility, better pay and status comes an increasing dependence upon a skill which is non-transferable outside the industry and highly specific even to a particular department within one plant. The dangers of this dependence only reveal themselves with the social dislocation of technical change which requires the transfer of personnel between departments, and, in the case of senior steelworkers, the prospect of "skidding" from a position at the top of one seniority line to the bottom of another. In this sense the production worker in steel has considerably more to fear from the effects of change than his craft colleagues in the maintenance departments whose skills are more readily transferable. Nevertheless, it seems that the seniority system has functioned to provide an important social framework for semi-skilled production workers and one which has been positively valued by

(17) J.E.T. Eldridge "Industrial Disputes" Routledge & Kegan Paul 1968, p.177

both management and trade unions alike.

Indeed it should be noted that whilst management at Ironhill reserves the right to man a new process, this is usually undertaken in cooperation with the unions concerned and the method of allocating men to tasks is very much a matter of joint-determination. The necessity to take joint decisions in the determination of new manning arrangements represents an area of value consensus between management and labour. As such, it facilitates the introduction of change and provides a useful example of how the ceding of managerial power may secure the consent of those concerned to the organisation of change. Joint rule determination in this area is not confined to Ironhill, but appears to be widely and traditionally practised throughout the industry. Scott noted, for example, that in the planning of a new strip mill in one plant:

"Agreement was also reached on the method for selecting individual operatives for particular jobs in the new mill. A formula was decided which gave the unions the responsibility for drawing up a short-list of four men for every job in the new mill, and the management chose one name from the four submitted. This, as one Branch official said, was a "very crafty arrangement", for it enabled the unions to avoid the charge of favouratism, whilst the firm avoided the charge of arbitrariness by giving the unions the responsibility for the short list."⁽¹⁸⁾

At Ironhill the establishment of the Oxygen Steel Plant in 1964 provides one recent example of how this kind of bilateral control applies. Here management claimed its usual prerogative to determine the initial manning of the plant and to select its nominees to all new "supervisory" manual production grades. "Initial manning", it should be noted, extends only to the selection of personnel: in this case management's proposals for the new job structure of the department were contested by the union and the outcome was a negotiated compromise which extended to arbitration. Once these manning arrangements had been confirmed, however, the normal process of

(18) W.H. Scott et al op.cit. p.132

promotion by seniority operated. In practice this normal process involves not only management and the individuals concerned, but also the trade union. Individual employees "out of compliance" with the union are not approved for promotion by the local branch. In this sense branch control over the promotion prospects of its members is powerful and serves as an important means of disciplining rank and file members.

The seniority system in steel forms one important basis of social control in the industry. By providing a career line for production workers it functions to attach employees to roles and to reward them with increments of status and pay for the increasing responsibilities and skills acquired with advancement. These responsibilities and skills are sufficiently well-defined to influence the relative size of line-management at Ironhill and could be associated with above-average business success in this particular plant. The perpetuation of this system appears to accord with the values of both management and steelworkers themselves as the preferred method of social organisation in which bilateral control is a central ingredient.

To argue for the existence of shared values between management and employees in this particular area implies nothing more than the existence of a stable framework within which predictable forms of industrial conflict may nevertheless occur. Moreover the seniority system accords well with wider aspects of the control process in steel to which we must now turn. In this section we have been concerned to emphasise the nature of systems constraints and the influence of these constraints upon certain aspects of the control process at Ironhill. In this context we have isolated the seniority system as one key dimension of control. Yet the stability of control in this plant cannot be attributed solely to the system of promotion, and it is to the isolation of other variables that we must now turn. In so doing attention is directed to the character of social integration in steel and at Ironhill, to the values and expectations of steelworkers themselves, and to the

institutions jointly developed with management for the regulation of their mutual relations and for the settlement of disputes between them. In this sense we suggest that the system of control as it exists in steel is the product of both systems and social imperatives operating independently and sometimes in conflicting ways, upon the organisation of the industrial relations process.

(b) SOCIAL CONSTRAINTS: THE STEELWORKER AND HIS ENVIRONMENT

Whatever the system of control has been in the past, it has been relatively stable until quite recently, judged by the incidence of both official and unofficial strikes in the industry. Whilst there undoubtedly exists an increasing propensity to strike among steelworkers at the present time, this has been concentrated particularly amongst maintenance rather than production personnel. Published strike statistics are not available for the industry per se whilst official returns on industrial disputes include the industry's performance within the wider metals production group.

Some general information on this subject can be obtained from statistics published by the Department of Employment and Productivity. A comparative analysis of the metal producing industries, which includes iron and steel, with mining - for many years the industry with the highest strike record in this country - suggests that whilst the situation has deteriorated in recent years the record of metal producing industries is reasonably good. (see table 6) During the period 1890-1906 the absence of strikes in the industry and the possible reasons for this were the subject of comment by Phelps-Brown who wrote:

"So it came about that down to 1906 there had been no big stoppage.....

Only six industries had had big stoppages.....There were two industries, moreover, where there had for long been no stoppage, although unions were strong - printing, and iron and steel.....The iron and steel industry..... was exposed to all the winds that blow, but it paid high and rising wages, more than any other industry, it offered the unskilled recruit prospects of advancement to really high earnings, stoppages were disastrously costly

because furnaces cracked when they cooled, wages were in any case a small part of the whole cost of production."⁽¹⁹⁾

Table 6: Comparative Strike Statistics Metal and Mining Industries, U.K.

1925-1970⁽²⁰⁾

(a) Number of Stoppages

	<u>Metals</u>	<u>Mining</u>
1925	48	174
1935	38	233
1945	170	1319
1955	44	1784
1970	326	165

(b) Number of Workers ('000's)

1925	11	138
1935	8	201
1945	19	244
1955	8	142
1970	88	118

(c) Number of Working Days Lost ('000's)

1925	96	3751
1935	42	1384
1945	68	644
1955	24	431
1970	621	1091

During a subsequent period between 1911 and 1945 Knowles indicates a similar picture of the stable condition of industrial relations in iron and steel.⁽²¹⁾

(19) E.H. Phelps Brown "The Growth of British Industrial Relations" Macmillan 1960, p.155-6.

(20) Sources: Ministry of Labour Gazette and British Labour Statistics Historical Abstract 1886-1968 Department of Employment and Productivity H.M.S.O. 1971.

(21) K.G.J.C. Knowles "Strikes - a Study in Industrial Conflict" Oxford, 1952

He found that the industry had been the least prone to strike, and that apart from the industry's participation in the General Strike, there had not been a widespread strike for half a century. Several explanations were offered by Knowles for this outcome. These embraced the operation of a selling-price sliding scale linking wage rates to market prices of steel over a long period down to 1940 (and thereafter by a scheme linking wages to the cost of living index); by the sober character of leadership on both sides of the industry; and by the inclusiveness of the industry's conciliation and arbitration machinery. The underlying causes of industrial peace in steel, however, in Knowles' submission were the economic circumstances which enabled the leaders of iron and steel workers to attain their ends by the pursuit of an essentially conciliatory policy. These circumstances were the tendency of the selling-price sliding-scale to induce agreements between employers and union leaders; the effects of steadily increasing productivity upon wages based partly or wholly on a tonnage basis so that average wages had remained high compared with those of workers in prosperous industries; and the possibility of maintaining earnings because wages in the industry formed a relatively small fraction of total costs.

More recent local information on this subject for the period 1949-61 is contained in Eldridge's analysis of Industrial Relations in the North East steel industry⁽²²⁾. Here strike data was derived from an analysis of newspaper sources and checked against the regional aggregates of the former Ministry of Labour. Both official and unofficial strikes were included in the survey, excluding only strikes which lasted for less than a day and those involving fewer than ten employees. Eldridge found that on this basis very few strikes had occurred. Twenty two strikes were recorded in all, averaging less than two a year. Of these strikes almost half were attributed to pay. Most were called by single unions and there was no evidence of concerted strike action being taken by all unions in a plant at any one time. The numbers of employees involved in strikes were small; in two-thirds of them

(22) J.E.T. Eldridge op.cit. p.197 see table XVIII A. This area includes Ironhill.

100 men or less were involved. Moreover the typical strike was of short duration, initiated largely in single plants, and unofficial. On this last point, however, Eldridge observes that the strikes were characterised as "perishable" disputes in which immediate redress was sought to correct alleged breaches in established work practices and conventions. Finally Eldridge discusses the responsibility of particular unions for strike activity. Given that there was a general absence of demarcation strikes during the period, he is left in no doubt that:

"Plainly, the craft unions were the main instigators and participants in strike action. The relatively large number attributed to the Boilermakers as compared to the other unions is of interest but ought not, perhaps to be exaggerated." (This last point refers to the fact that a majority of strikes by Boilermakers were sympathy strikes occurring within one plant within the space of a few days.)⁽²³⁾

The existence of inter-occupational disparities in strike-proneness along the lines of a craft-maintenance versus a production workers' division in steel is also recognised by Clegg⁽²⁴⁾. The reasons for the perpetuation of such a division are seen by this writer to lie in a fragmentation of methods of pay determination in the industry leading to competitive wage-bargaining inside the plant.⁽²⁴⁾ Thus whilst production workers have been paid by results (by the ton of steel produced), maintenance workers have been paid by time. Whilst increasing mechanisation has had the effect of increasing the proportion of craftsmen in the labour force it has also tended to increase the gap between the average incomes of both groups.

That this division is long-standing in steel is suggested by the earlier conclusions of Scott whose study previously referred to was undertaken during the period 1953-56. He writes:

"The rapid expansion and increased importance of the craft group has led

(23) Ibid p.200-1

(24) H.A. Clegg "The System of Industrial Relations in Great Britain". Basil Blackwell, 1970 p.327.

many craftsmen to believe that their rewards are no longer adequate; and in the absence of an effective formal structure of management-craft union relations, and of traditional values like those which management and production workers share, difficulties have arisen. Moreover there is a tendency for craftsmen to evaluate their conditions.....in relation to other groups, and there was evidence of inter - rather than intra - group comparison amongst junior staff".⁽²⁵⁾

Given, then the relatively low incidence of strikes in this area of the industry, and given also a concentration of grievance behaviour amongst maintenance craftsmen with more readily transferable skills, how can we define the pattern of social constraints operating upon production operatives whose skills are more specific to steel and whose apparent unwillingness to strike is a particularly important indicator of the stability of the control system. as it has traditionally operated at Ironhill and in the North-East Coast area of the industry?

Initially we should note that steelworkers at Ironhill form a relatively isolated and homogeneous residential community. Because the steelworks is long-established and the main source of employment in the area, the community of Ironhill has developed around the plant and is almost exclusively dependent upon it. Steelworkers form a homogeneous group dominating other employment groups within the community. At the same time, as we have seen, this group consisted principally of non-craft operatives engaged mainly in production as opposed to maintenance activities. The ratio of manual to non-manual employees in the group in 1967 was 5 to 1. It seems reasonable to assume, therefore, that the community of Ironhill is predominantly working-class in character, and that the social perspectives of steelworkers in this plant, including their orientations to employment there, are shaped in important respects by the values of that community.

(25) W.H. Scott et al op.cit. p.257

But what kind of social constraints would such values impose upon members of this community? To some extent we have already sought to resolve this question in more general terms in an earlier discussion of the environmental and occupational constraints which influence individual orientations to work and to control.⁽²⁶⁾ In many respects the community of Ironhill might be expected to approximate in its characteristics to that of a traditional working class area in which a distinctive form of social consciousness exists amongst its members. The dimensions of what Lockwood has described as "proletarian traditionalism" in this context include:

- (a) A solidaristic orientation to work. Work carries intrinsic as well as instrumental satisfactions, but relationships with management imply some fundamental conflict of interest and the role of trade unions in this situation is to provide the major organisational source of solidarity for employees vis a vis management. In this situation the trade union rather than the firm itself provides the context in which solidaristic relationships are sustained.
- (b) In wider context the class structure of society is seen also in terms of a power model in which status distinctions are defined in terms of a fundamental division of interests between "us" and "them". Manual workers in general are thus held to possess interests at variance with those of employers and even non-manual employees.
- (c) The possibilities of advancement are defined in the most limited terms. Security of employment rather than the prospect of promotion into first-line management or beyond is most valued.⁽²⁷⁾

At the same time there is some evidence to suggest that wider regional influences in the North-East have operated to produce a more conciliatory work and community environment than is found in certain other regions of the country

(26) See Chapter II, pp. 67-86

(27) See for example, D. Lockwood "Sources of Variation in Working Class Images of Society" Sociological Review, 14, 1966 pp.249-67

or suggested by Lockwood's model of proletarian traditionalism. Knowles, for example, contrasts the good industrial relations history of the North-East with the militant traditions of South Wales in his regional study of industrial strikes. By the use of a standardised "strike-proneness ratio" where industries are given an appropriate weight according to their share and rate of strikes whilst controlling the proportion of the occupied population employed during the period 1911-45, he finds that the ratios for South Wales and Northumberland and Durham, compared with the average for all industries, are as follows:⁽²⁸⁾

Strike-Proneness Ratio

South Wales	=	1.3
Northumberland and Durham	=	0.4
All regions	=	1.0

These ratios cover all industries in the regions. It seems fair to conclude, therefore, that regional influences, whose sources might be found in certain distinctive collective social and work experiences of the North-East, have played an important part in the development of good industrial relations in iron and steel in this area, and that the absence of any major industrial conflict at Ironhill since the General Strike of 1926 is due in part to the collective experience of labour in this area.

Moreover we have noted in our more general discussion of the nature of social constraints upon individual expectations of work and control that occupational values may operate in ways which complement or conflict with the normative systems of the wider community. Steel-workers, for example, may express their attachment to employment through well defined occupational groups of production, maintenance and service work. These groups may share certain norms related to the control of work situations and extending to a variety of arrangements including apprenticeship, demarcation and manning,

(28) K.G.J.C. Knowles op.cit. p.207

precedent and customs, status, seniority and job-rights. Under certain conditions it seems feasible to argue that occupational norms counteract or reinforce community norms in important respects, or that community norms themselves become modified by the pervasiveness of the occupational community itself. We have already cited the work of Cannon whose study of the craft compositor suggests that the process of privatisation may be inhibited by the countervailing power of occupational norms.⁽²⁹⁾ More recently, Brown and Brannen's analysis of social relations amongst shipbuilding workers indicates that it is possible for such workers to feel part of a working class community and of a shipbuilding community, and yet act at work in ways which appear to threaten the interests of that community. Thus solidarity arises over issues affecting particular occupational groups and their conflicting interests with other groups in the workplace. Indeed:

"The work situation itself then generates pressures for both conflict and cohesion among workers. The shared experience of working on a productthe danger and tough physical conditions associated with shipyard work and the ties of friendship which exist within the yard and extend beyond it into the wider community would seem to argue the existence of a close, solidaristic community. At the same time, however, the occupational and wage structure of the industry and the production process itself divide workers up into different interest groups and generate conflict between them."⁽³⁰⁾

Undoubtedly the linkages between work and community at Ironhill are strong and in certain respects mutually reinforcing. At the same time what constitutes a steel community has been shaped in crucial respects by characteristics which are unique to the steel industry itself as well as the wider region in which it is located. In this sense the expectations of steelworkers are similar in some respects to those of all manual workers in industry;

(29) I.C. Cannon op.cit.

(30) R.K. Brown and P. Brannen op.cit. p.204

in others, however, they diverge distinctively from what one might expect of the "proletarian traditional" worker. So far as steelwork in the North-East is concerned our contention is that control at Ironhill has been stable in part because there exists a relatively high degree of reciprocation within the occupational structure of the industry concerning the relative status to be accorded to each occupational group as well as a substantial degree of bilateral control between management and labour over those areas of job and work regulation which are of joint concern to these groups. At the same time the normative system of the local community and possibly that of the wider region, has reinforced those values which derive from steelwork and which appear to have limited conflict between management and labour in this plant. The existence of common values concerning the organisation of work, technical change, seniority and the processing of disputes, however, need not preclude the continued existence of criss-crossing lines of interest between groups of employees in terms of wage differentials or even of status. What is important is that these interactions occur within an apparently stable framework of shared values which accord particular importance to the desirability of maintaining traditional values of cooperation between management and labour in the organisation of work and to some extent in the planning of change. In this context the retention of the seniority system, teamwork based upon a common tonnage bonus and the continuing role of the trade union in selecting its members for promotion are principles of work organisation in steel which are adapted to meet changing conditions. Their continued existence in spite of change indicates the importance attached to them by both management and production workers and appears to be a crucial factor in the maintenance of stable control under conditions of change.

So far as Ironhill is concerned then we may conclude that the absence of strikes is attributable in no small part to both the regional, community and occupational influences described above. There is, however, a unique factor

which appears to have existed in the case of Ironhill and which may have had a marked independent effect upon the traditions and practices of this plant and upon the values of the community and the wider region.

It is the case that industrial relations were better at Ironhill than at most steelworks in the period between 1864 and 1914. For the greater part of this period there was little evidence of serious internal trouble. This record was linked with such personalities as David Dale, Joint Managing Director of the Company from 1864 to 1873 and Chairman until his death in 1906. Dale was a pioneer of conciliation and arbitration and was President of the North of England Board of Arbitration and Conciliation set up for the iron industry in 1869. The Board's record in conciliation was outstanding. On the union side, John Kane, originally an employee at Ironhill and later to become the leader of the Amalgamated Ironworkers Union, worked actively with Dale to establish the Board and served as its Secretary. Thus the traditions of compromise and the peaceful solution of problems which were later to become a hallmark of industrial relations in the industry were nurtured at Ironhill. The development of industrial peace in steel during the greater part of this century so far has at least one important source in the establishment of these practices in the North-East over one hundred years ago.

There is indeed evidence to suggest that the existence of this framework of shared values is not peculiar to Ironhill but does extend to other steelplants outside the region. Scott's study supports this view. He writes:

".....it is surprising, in terms of experience in other industries, that the formal structure of management-employee relations and traditional values have persisted and proved so effective in limiting conflict in the face of so many problems.....It must therefore be emphasised that the basic technical organisation of the industry is also important in promoting the smooth assimilation of change. The industry has a high capital/labour ratio.....From the employer's point of view, therefore, it is essential to keep a plant in continuous operation.....This, and the fact that wages are a relatively low proportion of total costs has made it both possible and desirable for employers to pay high wages. The relatively high earnings and the promotion system based on seniority give employees a big stake in the firm, and a strong disinclination to impede operations. Teamwork, and output bonus payments on a team basis, probably also contribute to stability. Both management and workers are therefore very dependent on each other; this must influence their readiness to compromise, as, for example, in the acceptance by the workers of management's right to effect changes provided that good conditions of employment and the seniority system are maintained..... Employees may accept the inevitability of changes, since they recognise their necessity if the firm is to maintain its position."⁽³¹⁾

Scott's assertion that the stability of high average earnings and the seniority system in steel provide the basic clue to the existence of cooperation between management and labour accords well with the findings of Phelps Brown and Knowles. Stability of control exists in their interpretation because economic circumstances and the process of technical change operate typically to sustain high wage expectations. Against this argument, however, must be considered the more recent conclusions of Banks whose historical survey of industrial relations in steel includes data suggesting that between

(31) W.H. Scott et al op.cit. p.258

1895 and 1927 wages in the iron and steel industry rose by only 103% as against 200% for the country as a whole.⁽³²⁾ In his submission the absence of major disputes within the industry and especially during the "black decade" 1921-31, cannot be attributed to the existence of joint industrial councils composed of workers' and employers' representatives established in the industry after 1870 with the intention of adjusting wages to fluctuations in steel prices. Nor can it be attributed to the existence of high wage-earning production workers motivated to resist industrial dislocation to prevent the incursion of unskilled cheap labour into the industry. A comparative study of wage levels in 1914 and 1925 quoted by Banks shows that whilst unskilled labourers in steel received increases of between 56% and 75% steelmelters only received increases between 26% and 33%, indicating a declining differential between these two groups.⁽³³⁾ In an industry, therefore, where according to this writer, the trend of real wages was on the whole unfavourable to workers in steel at least between 1921-31, and even more unfavourable to skilled than to unskilled employees, where the unemployment rate was twice the national level and where the industry paid no dividends at all on its ordinary share capital during these years, the absence of industrial disputes is remarkable.

Banks' solution to this apparent contradiction is first to reject the argument that technical advance operated favourably throughout upon the sliding scale of wages to sustain high wage incomes and to maintain existing wage differentials. Instead he argues that by the 1930's the control of iron and steel enterprises had passed into the hands of salaried directors whose prior concern, he assumes, was to maintain high plant loading and avoid industrial dislocation by seeking working compromises with labour.

(32) E.H.P. Brown and P. Hart "The Share of Wages in National Income" The Economic Journal, Vol.62, 1952, Table 1, pp.276-7. Quoted in J.A. Banks op.cit. p.93.

(33) Committee on Industry and Trade "Survey of Industrial Relations" H.M.S.O. p.79. Quoted in J.A. Banks op.cit. p.93.

Clearly the fact that Scott's conclusions refer to the decade between 1950 and 1960 whilst those of Banks refer to the 1920's suggest the use of caution in any comparative assessment of their work. But if Bank's conclusions concerning the changing philosophy of steel management towards control are accurate then it must be admitted that this philosophy appears to parallel to a remarkable degree that of the largest manual workers' union in the industry, the Iron and Steel Trades Confederation. It is this congruency of values between the principal parties to control in steel which appears to have been at least as important as the reasons offered by Phelps Brown, Knowles and Scott in defining the apparently stable pattern of industrial relations in the industry since the First World War.

What evidence is there to support our contention that this large industrial union's character has been shaped by a philosophy based upon co-operation rather than conflict in industrial relations? One source is found in the views of Sir Arthur Pugh, the General Secretary of the Confederation during its formative years between 1917 and 1936. Lincoln Evans, who succeeded him, claims that Pugh defined the essential character of I.S.T.C. in the following terms:

"Industry was not a place where two sides were ranged against each other in a state of permanent hostility engaged in a ceaseless class struggle, but a joint enterprise where divergent interests could be reconciled by discussion and negotiation against a backcloth of common interest."⁽³⁴⁾

and

"Running through this story (of the growth of I.S.T.C.) it will be seen, are certain basic principles which have governed the activities of the union in its relations with employers. First it is essential that when agreements are reached they must be honoured by those on whose behalf they are made.....Of equal importance is the observance of constitutional

(34) Sir Arthur Pugh "Men of Steel" I.S.T.C. (See foreward by Lincoln Evans) 1951.

procedure. Where machinery for the settlement of disputes is established through which elected representatives from the workshop take their full part in all the deliberations, the decisions reached must be binding on all.....the effectiveness of any joint machinery, however, depends not on the preciseness of its form.....but on the spirit which associates both sides in the use of it.....there is still too much of the attitude - and this applies with equal if not more force to the employers - that negotiations are battles to be fought rather than problems to be solved."⁽³⁵⁾

This desire for the maintenance of constitutional procedures and discipline in the organisation of the union's affairs in its relationship with management became and remain central features of I.S.T.C. policy. They have, however, much earlier roots. In 1913 there were approximately 100,000 trade union members in the iron and steel industry. One third of these members were in the dominating British Steel Smelter's Mill, Iron, Tinsplate and Kindred Trades' Association (later to become one of three unions amalgamating to form I.S.T.C. in 1917). Commenting on the leadership of the Smelters' Union by its general secretary, John Hodge, at this time, Carr and Taplin note:

"Hodge's outstanding leadership of the British Steel Smelters combined strength with moderation. Firm disciplinary action was taken against any branch which attempted to by-pass the accepted negotiating channels.The Union adopted an enlightened attitude to technical improvements, and Hodge claimed that they never obstructed any new device, "my policy having been to advise the men not to work against the machine..... provided we get a fair share of the plunder."⁽³⁶⁾

(35) Ibid p. xi-xii

(36) J.C. Carr and W. Taplin "A History of the British Steel Industry"
Blackwell, 1962 p.277

Whatever congruency of values exists between management and I.S.T.C. derives in no small part from a mutual interest of both parties in increasing the efficiency and profitability of the industry. Whilst conflict over the measures required to promote efficiency may undoubtedly exist, it is significant that values favourable to the maintenance of cooperation and the smooth assimilation of change have been a conspicuous feature of industrial relations at Ironhill and indeed throughout the steel industry of the North of England. Such values arise, as we have noted, from the involvement of both management and labour in a distinctive tradition of industrial relations and in a particular type of socio-technical system: a type whose system requirements are at least compatible with a pattern of social organisation permitting a wider than average degree of involvement and responsibility for its production workers than is found in most other comparable industrial situations. The result is the existence of an occupational ideology amongst production steelworkers which emphasises the "craft" status of steelwork and the joint involvement of management and men in effective steel-production. The norms surrounding the acceptance of this ideology are sufficiently pervasive to modify whatever traces of "proletarian traditionalism" might exist in the wider residential community of Ironhill. There is reason to believe, moreover, that the characteristics of the region as a whole may influence the ways in which "proletarianism" finds expression in this area and within the Ironhill community.

In this sense, steelworkers engaged on production as opposed to craft maintenance work constitute something of a "deviant case" amongst manual workers engaged in basic industry. It could be that this deviation is not peculiar to Ironhill but is a generalised feature of steelmaking in the north of England. Scott, for example, in his earlier study noted that:

".....we may say that the formal structure of management-employee relations, supported by traditional values favourable to the maintenance of

cooperation, has effectively limited the conflicts and problems arising from technical change."⁽³⁷⁾

What these dimensions of the steelworkers' ideology are, will emerge more fully in the next chapter. Our evidence suggests that steelworkers, in common with other manual workers elsewhere, are "proletarian" in the sense that they are committed to the value of trade unionism as an appropriate instrument of control. In important respects, moreover, they see their own interests as distinctive compared with non-production groups of employees including management, and are prepared to defend these interests by all means at their disposal. On the other hand the role of I.S.T.C. in management-union relations suggests a positive record in the planning of change in the industry, and our evidence suggests that rank and file members at Ironhill endorse their union's record in this respect. It is the commitment to reach suitable working compromises with plant management in the planning of change which emerges as a pronounced feature of union policy as well as an important aspect of the occupational culture of steelworkers.

Analysis of average weekly earnings at Ironhill over the period 1946-68 only partially supports the assertion that high wages are the central determinant of stable industrial relations in steel. A comparison of the average weekly earnings in all manufacturing industries for wage-earners aged 21 and over with employees in various steel production and craft maintenance groups indicates that not all steelworkers have maintained a higher level of average earnings than the average for all manufacturing industries over this period (see Table 6). Whilst a strict comparison between average earnings in manufacturing industry and steel workers at Ironhill is impossible since the latter includes employees under 21 years of age, steelworkers in general have not enjoyed a level of earnings which alone would account for the

(37) W.H. Scott et al op.cit. p.256

stability of industrial relations.

Table 6: Comparative Indices of Average Weekly Earnings for all Manufacturing Industry and Ironhill 1953-68

Year	Group				
	A	B	C	D	E
	All manufacturing industry: adults over 21 years only	Ironhill Blastfurnace workers: all employees	Ironhill Steelmelting workers: all employees	Ironhill Rolling mill workers: all employees	Ironhill craft maintenance workers: all employees
1953	100	100	102	99	93
1963	176	148	176	176	167
1968	232	187	238	229	219

Notes: (1) Index for all manufacturing industry derived from statistics in Ministry of Labour Gazettes.

(2) 1953 index for all manufacturing industries = 100

Blastfurnacemen and craft maintenance workers at Ironhill would appear to have produced average earnings somewhat below the mean. Steelmelters and rollers on the other hand were in line with the average earnings of workers in manufacturing industries.

In accounting for the apparent stability of industrial relations at Ironhill, therefore, our evidence suggests that some attention must be given, in addition to wage trends in the industry and the economic and technical conditions underlying these trends, to the character of the control system which affords considerable discretion to production employees to participate in decision-making, and, in wider context, to the pattern of social integration in steel and in the wider community as it has been discussed above, which appears

to sustain this effective system of control.

2. CONCLUSION: THE INTERACTION OF SOCIAL AND SYSTEM CONSTRAINTS

In this chapter we have sought to apply the model of control derived from Part I to the situation of one steel plant. We have attempted to explain by particular reference to the interaction of systems and social constraints how, in spite of considerable changes in the market environment of the plant, its system of control has remained relatively stable with profound implications for the low level of grievance activity found there. Crucial in this exercise has been the examination of the ways in which new constraints imposed by post-war market changes have been accommodated at plant level by a system of social organisation whose essential features derive from long-standing work practices highly valued by both management and production workers at Ironhill. The evidence presented so far in this chapter confirms the view that the increasing effectiveness of the enterprise as a production unit was facilitated to a considerable degree by the effectiveness of its pattern of social integration in limiting conflict and sustaining the awareness that cooperation in the planning of change was mutually beneficial and indeed vital if the plant were to survive.

It could be argued that the absence of conflict in this plant derives simply from the fear of unemployment and from the absence of alternative jobs in the vicinity of Ironhill. Our conclusions suggest that other factors unique to the industry and to the region exist to influence the level of work attachment. Some of these factors have been isolated in this chapter. It must be admitted that the job-specific nature of much semi-skilled employment in steel precludes mobility with the advancing age of many employees. At the same time it is remarkable that the

decline in the number of job opportunities announced by the Corporation as a result of plant closures and reorganisation amounting to some 19,000 out of a total payroll of 252,000 by March, 1971, should have been negotiated in large measure without the resistance and conflict which might have been expected. In our opinion this reaction is in keeping with the traditional interest of management and the major union, I.S.T.C. in increasing the efficiency and profitability of the industry and that in the manpower field this can only be realised by collaboration between parties. In this context the acceptance by the unions for more flexibility in working methods is reciprocated by an acceptance on the part of the Corporation that there must be an equitable wages structure as well as greater security and stability of earnings. The recent conclusion of negotiations for the implementation of the Corporation's productivity programme reinforces the argument that the conduct of industrial relations in this industry continues to command the support of the majority of those involved at least until the time of our inquiries at Ironhill in 1970. Our argument is that the necessary inter-dependencies between management and labour required to facilitate an adequate level of systems integration of the enterprise are sustained in this plant by a complementary system of social integration traditionally developed and evolving along lines which accord well with the values and expectations of participants.

In the following two chapters the results of two recently conducted attitude surveys of blue and white-collar employees at Ironhill will be presented. In so doing particular attention is given to the measurement of respondents' views about their job, employment and involvement of the system of industrial relations in steel. Their purpose will be to illustrate the importance of assessing how for differing categories of employees in this plant legitimise the present system of control and how far inter-occupational homogeneity exists within the labour force to sustain the process of cooperation and the stability of control described in this chapter. Where,

however, strains exist between actors and the control system, these will be discussed. In this particular context we shall indicate in Chapter VI how the existence of a long-term problem in the industry over the trade-union representation of white-collar workers manifests itself at the present time at Ironhill. This will serve as a timely reminder that potential strains in the process of plant control may arise not merely as the result of conflict between management and labour (variable 3/4 of our model) but also between groups within the labour force itself, and between rank and file actors and the control system itself which includes the official trade union representatives of the labour force (variable 2/4).

CHAPTER V

ORIENTATIONS OF MANUAL STAFF TO WORK AND CONTROL AT IRONHILL

In seeking to validate the utility of the concept of the control system in the analysis of stable patterns of industrial relations, it is necessary not only to explore the nature of the relationships existing between management and labour and between different occupational groups, but also to consider the conditions under which management secures the consent of employees to its rule. In doing so we discover something about the normative value system of that mass of British Steel Corporation employees who never take part in active trade union affairs nor in the industry's consultative process but whose consent to those rules of work jointly determined by management and the trade unions is crucial. In order, therefore to ascertain how employees respond to the organisation of job, work and industrial relations in steel at Ironhill, attitude surveys of random samples of manual and non-manual workers were conducted in 1970 and the results produced in this and the subsequent chapter. Throughout these reports we shall be exploring those characteristics of job and work which, through the eyes of particular groups of actors, appear to contribute towards the outcome of a stable system of control in this particular plant.

1. ATTITUDE SURVEY OF MANUAL WORKERS

This survey was conducted in May, 1970. 240 questionnaires were despatched of which 186 were returned, giving a response rate of 79%. A summary of respondents is given in Table 1.

Table 1: Summary of Respondents by Occupation.

Occupational Category	Numbers in sample	% sample	Occupational Category as % Labour Force
1. <u>Production/Service Workers</u> Steelmelters, rollers, road and rail transport workers, crane drivers and others.	109	58	55
2. <u>Blastfurnace and Cokeplant Workers</u>	33	18	12
3. <u>Maintenance Staff</u> Boilermakers, bricklayers, mechanical and electrical crafts, welders.	44	23	27

Personal information concerning age, educational and employment experience of the sample produced the following results:

Table 2: Distribution of Sample by Age.

Age Category	Number	Percentage
Under 30	44	23.7
30 - 50	73	39.2
Over 50	69	37.1
Total	186	100.0

Table 3: Distribution by School Leaving Age.

Age at Leaving School	Number	Percentage
14 or earlier	102	54.8
15	59	31.7
Later than 15	25	13.4
Total	186	100.0

Table 4: Distribution by Educational Qualification.

Qualification	Percentage (N = 186)
G.C.E. or C.S.E.	7.5
School Certificate	8.1
O.N.C.	2.2
Other	9.1
None	71.5
Non-Respondents	1.6
Total	100.0

From these tables it will be seen that the sample broke down into three roughly comparable groups in terms of age distribution. A significant majority left school at the age of 14 or earlier and a substantial majority failed to receive formal educational qualifications. In these terms it approximated to what one might expect from any representative group of manual workers.

Data concerning the employment experience of the sample was as follows:

Table 5: Distribution by Length of Service.

Years of Service	Percentage (N = 186)
Under 2 years	10.2
Over 2 and under 10 years	20.4
10 years and over	68.3
Non-Respondents	1.1
Total	100.0

A majority of the sample had experienced a long period of continuous employment in the Company although other data indicated that 62.0% had had previous employment experience and 43.0% unemployment experience at some

time during their working lives. In general terms, however, the sample was stable in this respect.

Stability of employment in the plant was matched by an equal disinclination to become detached from the residential community of Ironhill surrounding the plant. 83% of the respondents reported satisfaction with residence in this community because of family and friendship ties; only 17.0% were intent upon leaving because better opportunities existed elsewhere. Whilst 38.0% admitted that their employment in steel was constrained by the absence of alternative employment opportunities in the district, 75.0% chose to maintain their attachment to steelwork either because the pay appeared to be reasonable or because they found steelwork interesting and challenging. In these terms it can be concluded that a sizeable majority were positively attached to steelwork as a form of employment as the result of satisfactions received from job and work or, indirectly, as the result of membership of the wider Ironhill community.

Data derived from the survey suggested the initial hypothesis that the effects of exposure to the work and residential cultures of Ironhill were in line with what might be expected of the social attitudes of manual workers employed in a basic industry and residing within a predominantly working-class community. Thus 71% of the respondents rated their personal chances of promotion to foreman and higher as being limited or non-existent (against only 29.0% who rated their prospects as being "reasonable" or "good"). 42.0% admitted spending a good deal of social time outside work with immediate colleagues, suggesting the existence of occupational constraints upon mobility into management. The existence of social class constraints influencing the attitudes of respondents was further exhibited by their replies to questions concerned with opportunity and deprivation in their working lives. Whilst only 26% of respondents agreed with the statement that "the steel industry is like a ladder; you can climb to any position by your own efforts", 74% claimed that "whether in private or nationalised

hands, steelworkers will always be relatively worse off than those who control industry and will have to fight for every improvement in their condition". This last response is compatible with what might be expected of membership of "proletarian" work and community situations with histories of collective opposition to employers and others in positions of authority

(a) Attitudes towards jobs

Yet, as we have seen, there is a conspicuous absence of consistent and overt conflict at Ironhill. In seeking to explain, therefore, the apparent contradiction between the sample's identification in certain important respects with the characteristics of "proletarian" manual workers and its failure to engage in united opposition against management as might have been expected we are led to consider the attitudes of individual workers to their jobs and work. A review of such attitudes provides important insights into the nature of stable industrial relations in this plant.

A number of questions were asked which sought to expose the existence of any positively attaching features in the immediate job situation. The results are summarised in Table 6.

From this table it can be seen that the majority of respondents believed their jobs to contain a variety of features which enhanced the level of individual interest and satisfaction and as such facilitated the attachment of steelworkers to their jobs. These features included significant opportunities for choice and decision-making within the context of group work, as well as promotion within the ranks of manual work itself. Given the fact that 78.0% of the total sample had not served any formal craft apprenticeship, the existence of so many factors contributing towards job satisfaction is unusual outside purely craft occupations. Indeed it is only within the area of relatively high boredom in job routines that this sample approximates more closely to what one might have realistically expected of manual work in general.

Table 6: Attitudes Towards Job.

Job Category	Agree		No Fixed Opinion		Disagree		Total	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
Steelwork is interesting because there are:								
(a) opportunities to work without close supervision	132	77.0	19	11.0	21	12.0	172	100
(b) opportunities to work as a team member	147	84.0	16	9.0	11	7.0	174	100
(c) few boring routines	69	42.0	24	15.0	73	43.0	166	100
(d) opportunities for promotion (seniority as you gain experience)	131	74.0	10	6.0	35	20.0	176	100
(e) opportunities for holding responsibility and taking important decisions	111	63.0	25	14.0	41	23.0	177	100
(f) opportunities to work on your own initiative where your skills can be used adequately	139	78.0	11	6.0	28	16.0	178	100

These intrinsic elements of job satisfaction were complemented by other features of a more extrinsic nature. When respondents were asked to rank their reasons for initially selecting employment in steel, security and adequacy of pay emerged as the two most important. The prospect of the existence of opportunities for the development of skills and advancement was of lesser importance, suggesting that more instrumental considerations predominated in the initial choice of employment in steel whilst the absence of alternative employment opportunities in the area appeared to be a strong inducement in respondents' choices. Nevertheless it appeared that once the employment decision had been taken and steelwork experience obtained, new and possibly unexpected intrinsic satisfactions emerged to sustain the level of attachment. Further evidence which supported the hypothesis that stable industrial relations in steel might derive in part from the level of job

satisfaction experienced by steel employees was found in the responses to the statement that "steelworkers, once trained, are allowed to get on with their jobs without constantly being told what to do". 77.0% of respondents agreed with this; only 23% disagreed. Self-determination in manual steelwork appears to be high.

It is, however, the ability to find some autonomy within the context of group work which was seen by many to be of particular significance as the following table shows:-

Table 7: Attitudes Towards Teamwork

Teamwork Category	Agree	No Fixed Opinion	Disagree	Total	
	%	%	%	Nos.	%
(a) Working in a group is a good thing because it enables the worker to make friends more easily with other workers	87.0	8.0	5.0	184	100
(b) Work groups can solve problems themselves without continually referring to management for solution	85.0	6.0	9.0	184	100
(c) One bad thing about group work is that poor workers are carried by the rest	88.0	4.0	8.0	185	100
(d) Group work is good because it permits a man to develop his skills with experience	69.0	15.0	16.0	182	100
(e) Group work is a handicap to the more able worker whose progress is held back because a more experienced worker is in a position above him	55.0	16.0	29.0	181	100

Whilst the disadvantages of group work in permitting poor workers to be carried by the rest and, to a lesser extent, in impeding the progress of more able workers were acknowledged, the advantages of teamwork in facilitating the formation of friendships with others and in providing a favourable framework for problem solving were seen as important attributes of this kind of work organisation.

Of particular significance in this context is the scope provided by the group organisation of work for the existence of seniority systems and lines of promotion for manual workers, the principles of which were outlined in the previous chapter. It will be noted from Table 6 that 74.0% of the respondents (as against 6.0% with no fixed opinion and 20% in disagreement) believed that steelwork provided important opportunities for promotion of this kind. And since 87.0% of respondents (3.0% with no fixed opinion and 10.0% in disagreement) believed that it was necessary to gain wide experience of a particular occupation associated with steelmaking before reaching its top post, it appears that an important benefit of seniority is to confer status upon those carrying responsibility and with experience of particular occupational techniques in the industry. Of those respondents whose job was part of a seniority line, 87.0% reported promotion within the line and only 13.0% stated that they had never received any promotion whatsoever. In more general terms 72.0% of the same group believed that their lines of seniority offered guaranteed forms of promotion through experience and responsibility whilst only 28.0% disagreed.

Seniority lines and teamwork exist predominantly in the direct production departments employing mainly unskilled and semi-skilled labour. They do not exist for maintenance staff employing craftsmen. Not surprisingly, therefore, a marked occupational differential appeared between maintenance and production respondents on the question of promotion opportunities as Table 8 shows.

It appears, therefore, that the social organisation of steelwork in this plant permits the majority of its manual employees to derive considerable satisfactions from a variety of job activities. Three areas in particular concerned with the level of autonomy and discretion in this type of work, the prospect and actual achievement of promotion within the ranks of production manual work and the team organisation of work can be isolated as key sources of individual and group attachment to steel employment especially for the majority of production staff. That this attachment was stable over time is demonstrated by the fact that some 69.0% of respondents had been employed at Ironhill for 10 years or more.

Table 8: Occupational Attitudes Towards Promotion

Question: Steelwork is interesting because there are opportunities for promotion (i.e. seniority as you gain experience). Do you agree?

Occupational Category	Agree	No Fixed Opinion	Disagree	Total	
	Percentage	Percentage	Percentage	Nos.	%
<u>Production</u>					
Steelmelters	87.0	6.0	7.0	15	100
Steelrollers	85.0	0.0	15.0	65	100
Blastfurnacemen	84.0	5.0	11.0	19	100
Cokeplant workers	82.0	9.0	9.0	11	100
<u>Maintenance</u>					
Boilermakers	33.0	22.0	45.0	9	100
Bricklayers	43.0	0.0	57.0	7	100
Electrical Crafts	17.0	16.0	67.0	6	100
Mechanical Crafts	61.0	11.0	28.0	18	100

(b) Attitudes towards work

It is necessary, however, to look beyond the job attitudes of steelworkers to their wider perspectives of management and trade union activity at Ironhill. To what extent is the absence of overt conflict the consequence of an apathetic, poorly organised and deprived working population with inadequate alternative job opportunities and lacking the means of effective protest? Or to what extent is it the result of a relatively effective system of industrial relations at plant level permitting some degree of bilateral control and based upon a relatively high degree of normative congruence between management and labour and between constituent groups of the labour force on the form, content and outcomes of the system of control?

Initially, as we have noted earlier, there was a predisposition by the labour force as a whole to view its relationships with management in terms of a power struggle in which conflict could arise over the distribution of scarce

resources. Irrespective of the style of ownership of the industry, 74.0% of respondents claimed that they would always be worse off than those who controlled industry and would have to fight for every improvement in their condition. 80.0% also claimed that too many decisions in the plant were taken without seeking employees' points of view whilst 59.0% believed that the worker's job simply involved taking orders and involved no responsibility for participating in the process of making rules over the control of work. In these ways it might be concluded that the basic orientation of the steelworker to employment was compatible with the dichotomous social imagery implied in the concept of the "proletarian" labourer and that the absence of overt conflict was the consequence of inadequate opportunities to coerce management rather than a willingness to co-operate in the control process.

It is possible, however, to find evidence in the survey which supported the belief that steelworkers do not conform narrowly to this pattern. 53.0% of respondents (as against 15% with no fixed opinion and 32.0% in disagreement) believed that trade unions and management at Ironhill co-operated together because they recognised each other's points of view. 50.0% (15.0% with no fixed opinion and 35.0% in agreement) disagreed with the statement that "teamwork in industry is impossible because employers and men are really on opposite sides". 92.0% believed that the most important current common objective of management and the trade unions was to achieve and maintain the highest labour productivity. Moreover, there was convincing support for the Corporation's proposals for the industry's future (subsequently confirmed in various agreements with the industry's principal trade unions) as indicated in Table 9.

It can be argued then that a measure of agreement existed within the sample concerning the necessity of co-operation with management in the attainment of certain common goals. This recognition of interdependence is not incompatible with an underlying conflict perspective of steelworkers: it is rather an acceptance that separate interests are best pursued in this context through co-operation in planning more rational work objectives such

as those described in Table 9. This conclusion is supported by further evidence relating to respondents' perceptions of the effects of changing systems constraints upon their security and pay summarised in Table 10.

Table 9: Attitudes Towards British Steel Corporation Proposals for
Future Objectives

Objective	Agree	No Fixed Opinion	Disagree	Total	
	Percentage	Percentage	Percentage	Nos.	%
(a) To achieve a labour force which can be deployed flexibly	79.0	12.0	9.0	178	100
(b) Higher Productivity by full co-operation by trade unions on work study and job evaluation	82.0	10.0	8.0	180	100
(c) Higher productivity by more local productivity agreements	88.0	9.0	3.0	179	100
(d) Removal of wage anomalies by local negotiation	73.0	19.0	8.0	176	100
(e) Removal of fluctuations in earnings in favour of a more stable wage	83.0	8.0	9.0	179	100

Table 10: Attitudes towards Change

	Agree	No Fixed Opinion	Disagree	Total	
	%	%	%	Nos.	%
(a) Nationalisation is likely to increase the industry's profitability in the long run	62.0	14.0	24.0	180	100
(b) Nationalisation means that pay will increase faster than before	49.0	18.0	33.0	184	100
(c) Since nationalisation, the chances of Ironhill closing are very much less	32.0	28.0	40.0	185	100
(d) Technical change will eliminate some of the existing jobs in this plant	75.0	11.0	14.0	180	100
(e) This plant is overmanned	39.0	14.0	47.0	175	100
(f) Technical change in this plant is inevitable but must be accepted - even with redundancies - if conditions of employment are to be improved	72.0	8.0	20.0	181	100
(g) Because of the change I will probably have to change jobs within the industry during my working life	42.0	19.0	39.0	179	100
(h) Despite technical change prospects are better than before nationalisation for those who remain in the industry	64.0	15.0	21.0	179	100

Clearly there was some degree of general agreement that industrial re-organisation culminating in nationalisation was inevitable in economic terms. It was accepted that such changes must implicate rank and file employees through redeployment or even redundancy and the distinct possibility of the long-term closure of Ironhill was well recognised. Expressed in another way it appeared that the majority of respondents shared a common picture of the

implications for themselves of necessary changes in the plant and in the wider industry. What is important, however, is that the solution was not seen by the majority of these respondents in dichotomous terms, but rather in ways which included some recognition of management's problems and some willingness to cooperate with it in the amelioration of what appeared to be a common predicament. In spite of perceived difficulties and the possibility of future personal hardship, the fact that 93.0% of respondents reported that the industry's industrial relations record was good or about average - as opposed to only 7.0% who thought it bad - is outstanding, though it must be admitted quite compatible with the history of industrial relations in this plant.

The attitude of respondents to their own management's and trade union's performance at Ironhill was reflected in more detail in the replies sought to other questions. 65.0% of respondents agreed and 22.0% disagreed with the proposition that "Ironhill management is good because it is prepared to listen to complaints and consider suggestions". 54.0% agreed and 30.0% disagreed with the statement that "one strong point about the unions is that they are democratic and consider all members' points of view". On the other hand there were some misgivings about the local competence of Ironhill management and unions. 54.0% of respondents believed that Ironhill management was less effective than it might be because its autonomy was constrained by executive management decisions at Divisional and Head Office levels; 52.0% claimed that plant-level industrial relations suffered because problems concerning pay and conditions were not settled with sufficient speed. Nevertheless comparative data presented in the next table concerning respondents' estimated distribution of existing and ideal amounts of influence over what went on at Ironhill by different strata in the plant hierarchy tended to support the belief that the steelworker's view of the system of control there was not simply dichotomous, but one which, under ideal conditions, would sustain a high level of reciprocal influence.

Table 11: Orientations to Control: Perceived Distribution of Influence
Over Control at Ironhill under Existing and Ideal Conditions

Position in Plant Hierarchy	Degree of Influence			
	Great Deal	Quite a bit	Very Little	None at all
	Numbers	Numbers	Numbers	Numbers
<u>(a) Perceived distribution of influence at the present time</u>				
British Steel Corporation Top Management	114	43	16	5
Divisional Management	109	59	8	10
Ironhill Management	58	81	32	2
Ironhill Foremen	7	56	82	25
Ironhill Trade Union Officials	28	78	54	17
Ironhill Shop Stewards	13	80	65	17
Ironhill Manual Workers	7	32	69	68
Ironhill Clerical Staff	3	40	67	62
<u>(b) Perceived distribution of influence in ideal circumstances</u>				
British Steel Corporation Top Management	69	70	23	7
Divisional Management	85	74	9	2
Ironhill Management	135	33	6	0
Ironhill Foreman	18	100	37	10
Ironhill Trade Union Officials	63	92	14	4
Ironhill Shop Stewards	34	108	19	10
Ironhill Manual Workers	24	91	40	11
Ironhill Clerical Workers	8	72	60	28

An average weighted score for respondents' judgements of the distribution of influence over control at Ironhill was derived from the data obtained in Table 11 for each level of the hierarchy described. The total number of respondents' judgements in each of the four main categories of influence

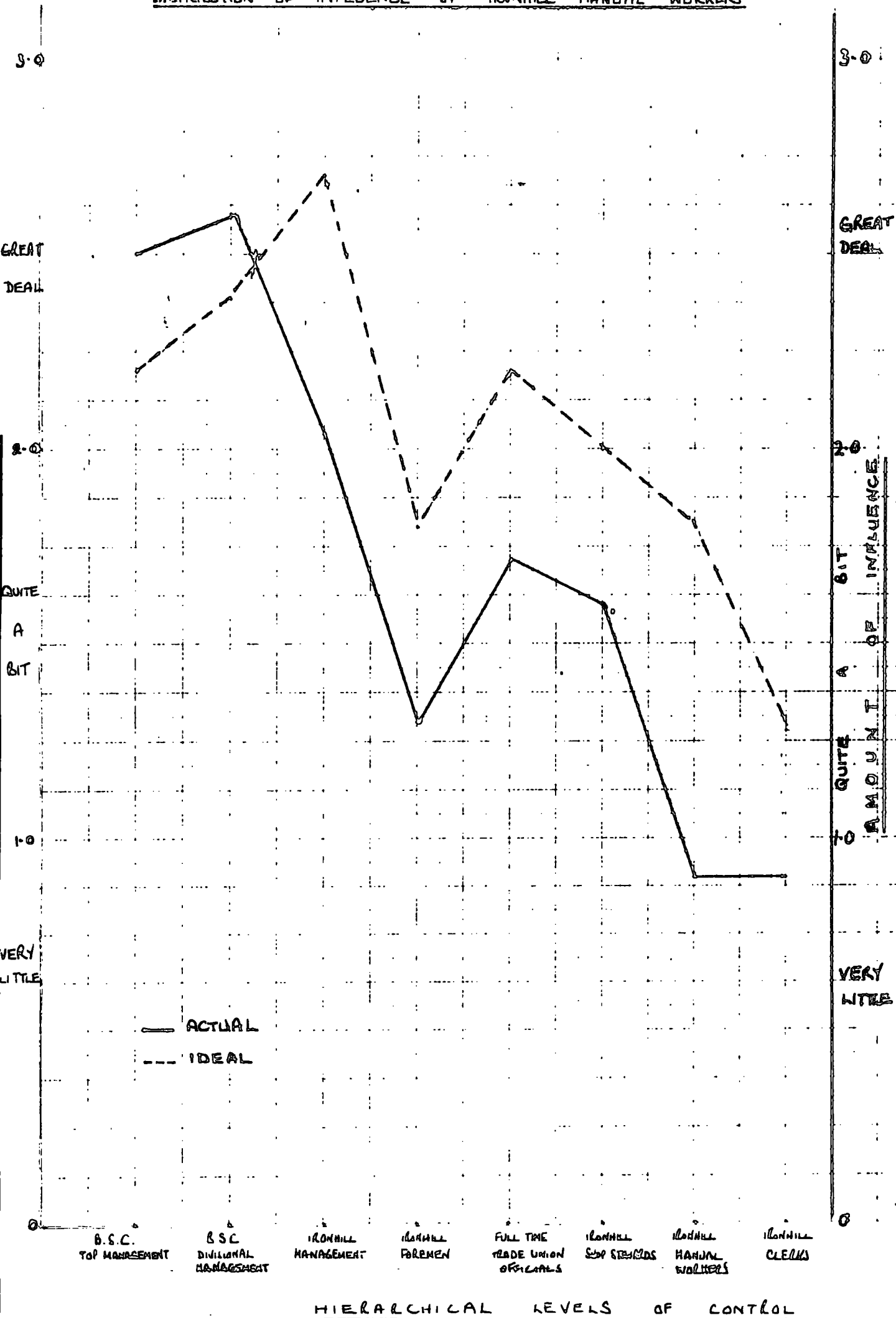
(Great Deal, Quite a Bit, Very Little and None at all) were multiplied by a factor of 3, 2, 1 and 0 respectively and divided by the total number of respondents in each of the three main occupational branches. The results are shown below:

Table 12: Orientations to Control: Average Weighted Perceived Distribution of Control at Ironhill under Existing and Ideal Conditions

	Index
<u>(a) Perceived distribution of influence at the present time</u>	
British Steel Corporation Top Management	2.5
Divisional Management	2.6
Ironhill Management	2.1
Ironhill Foremen	1.3
Ironhill Trade Union Officials	1.7
Ironhill Shop Stewards	1.6
Ironhill Manual Workers	0.9
Ironhill Clerical Workers	0.9
<u>(b) Perceived distribution of influence in ideal circumstances</u>	
British Steel Corporation Top Management	2.2
Divisional Management	2.4
Ironhill Management	2.7
Ironhill Foremen	1.8
Ironhill Trade Union Officials	2.2
Ironhill Shop Stewards	2.0
Ironhill Manual Workers	1.8
Ironhill Clerical Workers	1.3

These weighted indices are plotted on a control graph (see figure 3)

FIGURE 4 : CONTROL GRAPH - PERCEIVED ACTUAL AND IDEAL DISTRIBUTION OF INFLUENCE BY IRONHILL MANUAL WORKERS



This data indicates that respondents' perceptions of the existing influence over control at Ironhill allocated most influence to management, and, to a lesser extent, full-time trade union officials. Within the ranks of management, British Steel Corporation top management and divisional management were perceived to wield greater influence at the present time than plant management at Ironhill. Within the ranks of labour, full-time trade union officials were seen to be more influential than shop stewards. Foremen were judged to be less influential than shop stewards whilst rank and file manual and clerical staff were seen to be least influential in the current situation. The pattern of existing influence, therefore, suggested some degree of bilateral influence between management and labour. Whilst the heaviest concentration of influence is seen to rest in managerial hands, the minor peak of labour influence is significant.

Respondents' judgements on the ideal pattern of the distribution of influence, however, indicated a desire for a control profile with important implications for the ways in which a stable pattern of industrial relations might be sustained. These respondents clearly sought an increase in the total amount of influence available to all echelons of the hierarchy. But whilst more influence was sought for such subordinated groups as trade union officials, shop stewards and rank and file workers, this was not desired at the expense of management, but rather that the influence of certain managerial and labour groups should be jointly increased. Even here, however, managerial influence was seen to be necessarily greater than the influence of labour in ideal circumstances. What is demonstrated is a desire for a greater degree of shared control with management rather than a parity of control. Only in two areas could it be said that respondents sought changes in the distribution of influence under ideal conditions from those which currently existed, as opposed to the desire for an increase in the total amount of influence which was clearly exhibited. Thus under ideal

circumstances, respondents sought an expansion of plant management influence at the expense of both divisional and top management. This could be interpreted as a reflection of the dissatisfaction of manual respondents with the declining importance of Ironhill's own management in the control system vis a vis higher echelons of the managerial hierarchy introduced since the nationalisation of the industry. In ideal circumstances also, respondents desired more influence for rank and file manual workers than for clerical staff.

All this seems to indicate a desire for wider cooperation with management in control but within the framework of existing industrial relations machinery involving full-time and lay trade union activity rather than more direct employee involvement. What emerges most clearly from the data is the belief by the majority of respondents that the system of control at Ironhill is one which, under ideal circumstances, could and should sustain a high level of mutual influence.

This scheme of expectations, moreover, accorded well with responses to other questions concerned with the nature of order and control in the wider society indicating that opportunities for influencing broader social issues outside the workplace existed in the judgement of these respondents. Their opinions about the nature of social order were as follows:

Table 13: Attitudes Towards Social Order and Control

Control Category	Percentage (N = 186)
(a) We live in a fair society	49.0
(b) There is injustice in our society but this can be corrected by making reforms	33.0
(c) No matter what we do, the kind of society we live in will always be unjust. The only solution is a new kind of society	11.0
Non-Respondents	7.0
Total	100.0

Thus the attitudes of the sample towards the development of bilateral control in the plant are not inconsistent with a wider belief that the nature of current methods of social control are acceptable but capable of being influenced where necessary changes are required.

These questions concerned with the existing and ideal distribution of influence between strata of the plant and industrial hierarchy, however, reveal little about the content of bilateral control: the areas in which joint control exists or would be valued. Respondents were asked to indicate how much influence they believed their occupational groups had with Ironhill management in each of a number of work control categories both currently and in an ideal situation. The results are shown in Table 14 and plotted on a control graph (see figure 5). An average weighted index for respondents' judgements was derived for each control category along the lines previously discussed (see page 179).

These results indicate a measure of control at the present time over most of the work areas listed in Table 14. In certain areas this was substantial, especially in respect of workplace, safety, pay rates and selection of personnel to positions within seniority lines. Only in the areas of general financial policy matters, recruitment and purchases of new equipment were low indices derived. The highest ideal indices were also obtained in areas where existing influence appeared to be substantial suggesting a fairly stable pattern of responses across the list of control categories outlined in the table on the following page. The greatest discrepancy between present and ideal indices appeared to exist over the fixing of work standards by such techniques as job evaluation and work study. This last response is quite compatible with the negotiations which were being conducted on this subject in the industry at the time the survey was administered.

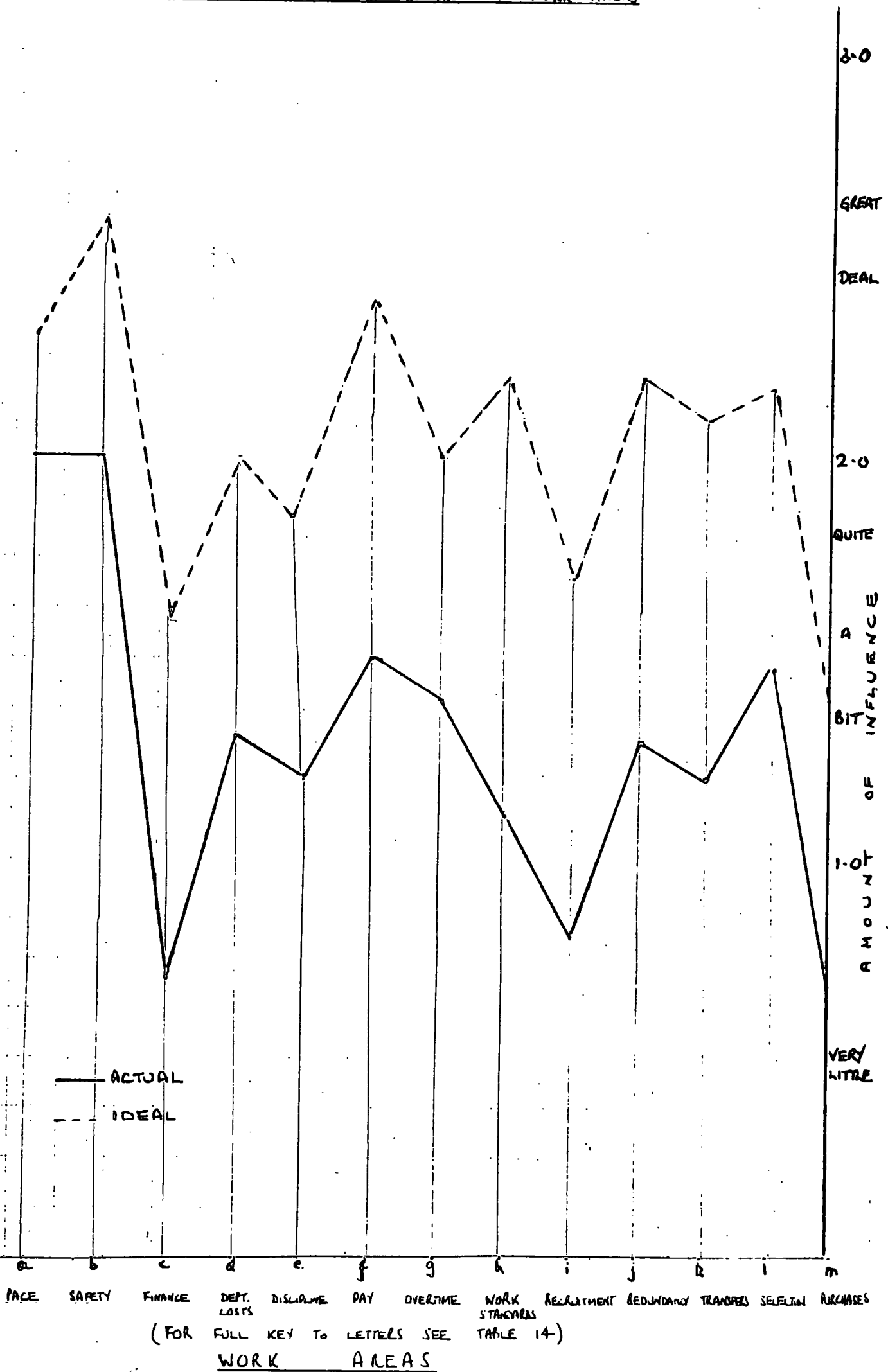
The results derived from Table 14 are plotted on a control graph (see figure 5).

Table 14: Orientations to Control: Average Weighted Perceived Distribution of Control between Key Work Control Categories under Existing and Ideal Conditions

Control Category	Actual Index	Ideal Index
(a) The pace at which members of the group have to work	2.0	2.3
(b) Safety matters	2.0	2.6
(c) Financial policy matters	0.7	1.6
(d) Reducing departmental costs by suggesting economies in operations	1.3	2.0
(e) Disciplining of employees including dismissals	1.2	1.8
(f) Pay rates and bonuses	1.5	2.4
(g) Amount of overtime available	1.4	2.0
(h) Fixing work standards by job evaluation and method study	1.1	2.2
(i) Controlling the recruitment of new employees	0.8	1.7
(j) The handling of redundancy problems	1.3	2.2
(k) Transfer of men between departments as a result of technical change	1.2	2.1
(l) The selection of men to positions within the seniority line	1.5	2.2
(m) Purchasing new machines and equipment	0.7	1.4

The evidence presented so far in this section, therefore, suggests that steelworkers are attached to their work by a number of factors, all of which tend to minimise the development of a dichotomous social imagery which might preclude the possibility of cooperation with management and their own trade union officers in the determination of common objectives and in the planning of change. Whilst steelworkers, in common with most other manual workers,

FIGURE 5 : CONTROL GRAPH : PERCEIVED ACTUAL AND IDEAL DISTRIBUTION OF INFLUENCE OVER CONTROL OF WORK AREAS



believe that they must "fight for every improvement in their conditions", other values which appear to be widely shared by steelworkers channel the direction in which they organise what is for them the most appropriate means of protecting their interests. These shared values provide a common framework within which the process of plant control occurs and is legitimised. The result in this case is the stabilising of control in ways which minimise the existence of recurrent and disruptive industrial conflict. Thus a relatively high degree of consensus existed within this sample on the state of the plant's current and prospective economic condition and the implications of this for individual security and advancement; on the effectiveness of local management and trade union performance in plant industrial relations and the impediments to satisfactory relationships created by the enlargement of the managerial hierarchy beyond Ironhill; and on developments in the total amount and distribution of bilateral control between different groups of staff and between different work areas. In the latter case the proposed developments were seen as extensions of traditional work practices rather than radically new departures so that the successful planning of change was facilitated by the retention and adaptation of established practices in the new situations. Moreover, these developments in the system of plant control permitting the growth of mutual influence between management and labour complemented respondents' judgements about the quality of social control in the wider society. These factors, together with the effectiveness of the social organisation of steelwork referred to in the previous section of this chapter permitting a relatively high level of autonomy in job organisation, the prospect and actual achievement of promotion within the ranks of production work and the teamwork basis of job organisation, attached these steelworkers positively to their job and work situations and account, in our opinion, for the stability of control in this plant.

(c) Attitudes Towards Occupation

The level of individual attachment to job and work constitutes one important means of measuring the stability of control in industrial organisations. Such an approach, however, tends to conceal the extent to which occupational influences constrain individual judgements over the effectiveness of control. In an attempt to remedy this deficiency and in order to throw some light upon occupational differences in the individual assessment of job satisfaction, work status and occupational influence, information was sought from respondents on these questions. The results provide some useful insights on the extent of occupational homogeneity in steel and on the extent to which occupational differentiation sets limits on the level of stability of plant control systems. As such, occupational analysis serves as a useful corrective to the uniformly optimistic results which have emerged in the case study so far.

Initially respondents were asked to indicate how much influence they believed their own occupational group possessed in dealing with management at Ironhill. Each respondent was asked to indicate how much influence he thought other occupational groups possessed (ignoring his own group). The results are shown in Table 15. From this table it will be observed that four groups of high influence emerged: steelmelters and steelrollers, mechanical and electrical craftsmen. Three groups of relatively low influence were also defined as being clerical workers, cokeplant and transport workers. Of the remaining four occupational groups with intermediate influence, blast-furnacemen were perceived to be more influential than boilermakers and bricklaying craftsmen, and cranedrivers. The validity of occupational assessment in these terms appeared to be established since several occupations located at different points on the ranking scale were linked within the same trade union. Thus blastfurnacemen and cokeworkers share a common membership of the National Union of Blastfurnacemen; steelmelters and rollers, cranedrivers

Table 15: Evaluation of Inter- Occupational Influence

Occupation	More influence than your own group	About the same	Less influence	Total	
	Percentage	Percentage	Percentage	Nos.	%
Steelmelters	65.1	30.3	4.6	152	100
Mechanical Crafts	63.1	32.6	4.3	141	100
Steelrollers	60.0	35.2	4.8	145	100
Electricians	59.1	32.9	8.1	149	100
Blastfurnacemen	43.8	39.4	16.8	137	100
Boilermakers	40.3	49.3	10.4	144	100
Bricklayers	29.5	52.3	18.1	149	100
Cranedriers	26.3	46.1	27.6	152	100
Clerical Workers	19.3	42.7	38.0	150	100
Cokeplant workers	11.3	59.6	29.1	141	100
Transport workers	9.7	50.7	39.6	144	100

clerical workers and transport staff are members of I.S.T.C. Of particular interest here is the high status accorded to production workers in steelmelting, rolling and blastfurnace work by respondents outside these occupations. All three groups appear within the first five occupations in terms of status; only cokeplant staff rank low in influence comparable with service workers in transport and clerical grades. Whilst mechanical and electrical crafts rank high in the scale, other craft groups carry considerably less status so that craft status in general is much more attenuated. Clerical work is seen by all these manual respondents to be much inferior in influence to most manual occupations suggesting that, in steel, while-collar non-managerial skills are not rated highly, compared with the prestige accorded to the manual production occupations.

The possible implications of this status differential dividing the occupational structure were explored by attempting to measure the strength of

occupational attachments in the plant. Respondents were asked to indicate their attitudes to the proposition that "there is no such person as a steelworker; only blastfurnacemen, melters, rollers, welders, fitters etc."

The extent of the occupational division over this particular issue is established when occupations are grouped into three major categories comprising all production and service staff within the first category - with the exception of blastfurnace and cokeplant workers who are located in the second category - and craft maintenance staff in the third. The advantage of this classification is not only to permit some investigation of possible divisions between production/service and maintenance staff, but also to indicate the nature of possible divisions between production workers themselves. Table 16 indicates the pattern of responses obtained to this question.

Table 16: Analysis of Occupational Attachment by Major Occupational Categories

Question: "There is no such person as a steelworker; only blastfurnacemen, melters, rollers, welders, fitters etc." Do you agree?

Occupational Category	Numbers	Agree %	No Fixed Opinion %	Disagree %
Production/Service	108	37.0	7.0	56.0
Blastfurnacemen/ Cokeplant staff	30	70.0	3.0	27.0
Craft Maintenance	41	66.0	12.0	22.0

These results suggest that production/service employees whose skills are highly specific to the steel industry and who form the largest category of employees both at Ironhill and in the industry generally are least likely to view their attachment to work in narrow occupational terms. On the other hand, blast-furnace/cokeplant employees emerge as a deviant group amongst production workers in their high degree of occupational identification; in this respect they compare most strongly with the craft maintenance group whose sense of occupational attachment is not surprisingly well developed.

This conclusion was further substantiated by the replies received to a statement that "teamwork in industry is impossible because employers and men are really on opposite sides". Table 17 indicates the pattern of responses received.

Table 17: Analysis of Occupational Attitudes Towards Management by Major Occupational Categories

Occupational Category	Number	Agree %	No Fixed Opinion %	Disagree %
Production/Service	110	27.0	18.0	55.0
Blastfurnacemen/ Cokeplant staff	32	47.0	9.0	44.0
Craft Maintenance	40	50.0	10.0	40.0

The predisposition to oppose managerial prescriptions is thus more highly concentrated amongst craft maintenance staff than production/service. Amongst production workers in general, moreover, blastfurnace/cokeplant staff were more likely to agree with the proposition than were others in this category. These results suggest something of a continuum of responses by major occupational category, with production/service staff potentially more likely to view their relationships with management in more cooperative and less dichotomous terms than craft maintenance, blast and cokeplant staff.

What emerges is the existence of some degree of occupational diversification in response to these questions; in both cases the plant's I.S.T.C. production workers and service staff diverge in their responses from those of craft workers in the maintenance departments. In these respects I.S.T.C. members' responses are compatible with the ideology of their union outlined in the previous chapter. But the benefits of unity in labour activity and teamwork in management-labour relations appear to be more doubtful objectives to respondents in the maintenance, blastfurnace and cokeplants department

than elsewhere. In these terms we reach the limits of consensus at Ironhill: clearly occupational influences were likely to distinctly demarcate the boundaries of collective behaviour and cooperation. Where and how these boundaries are drawn, of course, has clear implications for the stability of control at Ironhill.

But in order to define just how much normative consensus existed between the three occupational groups, further analysis was directed towards the examination of, firstly, common orientations to steelwork and social opportunities in the wider society, and secondly to more specific issues concerned with the distribution of control at Ironhill.

(d) Opportunity and Control in Steel

On the subject of common orientations to work, respondents were asked to indicate which of two statements concerned with opportunity in the industry and in the wider society they most identified with. The results are summarised in Tables 18 and 19.

Table 18: Opportunity in Steel

Statement	Production/ Service		Blastfurnacemen/ Cokeplant		Craft Maintenance	
	Nos.	Percentage	Nos.	Percentage	Nos.	Percentage
The steel industry is like a ladder. You can climb to any position by your own efforts.	26	26.0	6	22.0	12	31.0
Whether in private or in nationalised hands, steelworkers will always be relatively worse off than those who control industry and will have to fight for every improvement in their condition.	74	74.0	22	78.0	27	69.0
Total	100	100.0	28	100.0	39	100.0

Table 19: Opportunity in Society

Statement	Production/ Service		Blastfurnacemen/ Cokeplant		Craft Maintenance	
	Nos.	Percentage	Nos.	Percentage	Nos.	Percentage
(a) We live in a fair society	59	56.0	15	53.0	18	45.0
(b) There is injustice in our society, but this can be corrected by making reforms	35	33.0	10	36.0	17	43.0
(c) No matter what we do, the kind of society we live in will always be unjust. The only solution is a new kind of society.	12	11.0	3	11.0	5	12.0
Total	106	100.0	28	100.0	40	100.0

These results indicate a high degree of occupational homogeneity on the subjects of opportunities in steel and in the wider society. All three categories exhibited a marked similarity in the need for concerted action in the improvement of employment conditions for the labour force. There was also a substantial amount of agreement on the nature of opportunity in the wider society; relatively small minorities in each category believed that radical changes were necessary.

Two further sets of statements were included to permit investigation of occupational attachments to steel employment and residence in Ironhill. The results are shown in Table 20.

Table 20: Attitudes Towards Steel Employment

Statement	Production/ Service	Blastfurnacemen/ Cokeplant	Craft Maintenance
	Percentage (N = 108)	Percentage (N = 30)	Percentage (N = 41)
(a) I work in steel because there's nothing else to do in the area	31.0	53.0	20.0
(b) I work in steel because the pay's not bad for the kind of work I do	42.0	27.0	41.0
(c) Even though there are grumbles about aspects of the job, I find steelwork interesting and challenging	27.0	20.0	39.0
Total	100.0	100.0	100.0

Table 21: Attitudes Towards Residence in Ironhill

	Production/ Service	Blastfurnacemen/ Cokeplant	Craft Maintenance
	Percentage (N = 105)	Percentage (N = 30)	Percentage (N = 39)
(a) I am happy living in the Ironhill area because I have family and friendship ties here	82.0	90.0	82.0
(b) I intend leaving Ironhill if I get the chance - there are better opportunities elsewhere	18.0	10.0	18.0
Total	100.0	100.0	100.0

So far as attachment to steel employment was concerned the major source of attachment for both production and craft workers was the adequacy of pay for the level of skill employed. For blastfurnace and cokeplant crews, however, the main source of attachment appeared to be negative in the absence of alternative employment opportunities. It will be noted also that craft maintenance workers were more likely to be attached by intrinsic factors such as job interest and challenge whilst the balance of production workers were divided almost equally between negative attachment as the result of poor alternative employment opportunities and positive attachment as the result of interest and challenge in the job. On the other hand whilst there was a high degree of homogeneity on the subject of satisfaction with residence at Ironhill, blastfurnace and cokeplant workers if anything tended to be most firmly attached to the community.

With regard to more specific questions concerning the extent of normative consensus in the area of intrinsic satisfactions in steelwork attachment, the results indicated a substantial degree of occupational diversification under certain items as given in Table 22.

These results indicate that production crews were highly satisfied with all job satisfaction items with the exception of (c). Boredom in production work routines was marked and of concern to this group. Craft maintenance workers were also concerned about boring work routines, but more concerned about the absence of promotion opportunities. Of all three occupational categories this group tended to exhibit somewhat higher rates of job dissatisfaction. Blastfurnace and cokeplant workers on the other hand reported the lowest rates of dissatisfaction with the level of boredom in work but were most anxious about the absence of opportunities for holding responsibility and taking decisions in their work activities.

Table 22: Attitudes Towards Job

Statement	Production/Service				Blastfurnacemen/Cokeplant				Craft Maintenance									
	Agree		No Fixed Opinion		Disagree		Agree		No Fixed Opinion		Disagree							
	Nos	%	Nos	%	Nos	%	Nos	%	Nos	%	Nos	%						
Steelwork is interesting because there are:																		
(a) opportunities to work without close supervision	81	82.0	11	11.0	7	7.0	21	68.0	6	19.0	4	13.0	30	71.0	2	5.0	10	24.0
(b) opportunities to work as a member of a team	91	88.0	8	8.0	5	4.0	24	83.0	3	10.0	2	7.0	32	78.0	5	12.0	4	10.0
(c) few boring routines	35	36.0	16	16.0	46	48.0	13	50.0	4	15.0	9	35.0	21	49.0	4	9.0	18	42.0
(d) opportunities for promotion	85	82.0	3	3.0	16	15.0	25	83.0	2	7.0	3	10.0	20	48.0	5	12.0	17	40.0
(e) opportunities for holding responsibility and taking decisions	66	64.0	19	18.0	19	18.0	19	63.0	0	0.0	11	37.0	20	60.0	6	18.0	8	22.0
(f) opportunities to work on your own initiative where your skills can be used adequately	76	77.0	9	9.0	14	14.0	24	77.0	2	6.0	5	17.0	35	81.0	0	0.0	8	19.0

At the same time, it was apparent that the three occupational groups derived considerable satisfaction from a variety of common factors associated with the organisation and performance of their jobs. These factors concerned the existence of good opportunities to work without close supervision, to work as a member of a team, and to exercise initiative and the adequate use of skills in employment. The area of consensus over what constitutes a satisfying job is even higher if the production group as a whole (melters, rollers, blastfurnacemen and cokeplant workers etc.) is considered. It is apparent, for example, that all employees with the exception of craft maintenance workers were highly satisfied with the opportunities which exist in steel production work for promotion. Taken together, the existence of a wide area of agreement on what constitutes a satisfying job in steel must be considered as contributing in no small part to the stability of work control in this plant.

On the other hand, the somewhat higher rates of occupational dissatisfaction exhibited by craftsmen must be regarded as possible indicators of instability given the predisposition of this group for interesting and challenging work shown by maintenance staff (see Table 20).

It can be argued, therefore, that whilst a high degree of normative consensus existed to unite respondents in a common orientation to steel employment on the subjects of personal opportunities in steel and in the wider society, occupational influences diversified the sample in other respects, particularly with regard to questions of the quality of work attachment, identification with management and occupation, and on attitudes towards initial employment in steel. The quality of these distinctions is sufficiently marked in certain areas to suggest implications for the stability of control at Ironhill.

It will be noted, for example, that the responses of production and service workers (members of I.S.T.C.) suggested a relatively stronger measure of individual commitment to steelwork and a more positive approach to

the effectiveness of existing systems of control in the industry. Within this category there appeared to be a well developed sense of awareness of the potentially disruptive effects of an independent pursuit of strategies by separate occupations within the industry as well as a much higher level of acceptance that the level of pay offered was commensurate with the level of skill deployed. At the same time respondents in this first group were most likely to acknowledge an interest in steelwork because it offered valued intrinsic rewards such as opportunities to work without close supervision, to work as a member of a team, to receive promotion with seniority, to use initiative and skills as well as providing opportunities for holding responsibility and taking decisions. Finally, respondents in this category exhibited a high level of satisfaction with continued residence in the Ironhill community. Taken together, these results suggest a pattern of largely fulfilled expectations of employment. Of all workers, this group appeared most likely to legitimise the existing system of control in this plant.

How then do the responses of the other members of the other categories compare with this? Craft maintenance employees, for example, were more emphatic in the belief that the primary allegiance of the individual must be to a particular occupation rather than to the wider group of steelworkers as a whole: in this respect occupational attachment was noticeably stronger. Of all three categories, however, craftsmen were most likely to view employer-employee relations in dichotomous terms and most likely to find specific aspects of job organisation unsatisfactory. Craft maintenance workers, therefore, were an occupationally homogenous category but much more likely to express this homogeneity strategically to advance their own interests as a distinctive group.

To some extent a degree of occupational diversification might be expected between production and maintenance workers in this industry. As we have already seen the status of the craftsman in steel is ambiguous: his

prestige as a craftsman appears to be challenged by the importance attached to production skills and by the higher monetary rewards to be obtained from the most important types of production work. There is evidence, moreover, to suggest that these differences are not peculiar to Ironhill and are of a longstanding nature⁽¹⁾. What emerges from this study is the indication that the attachment of craftsmen to steel employment and steel management is likely to be more problematical than that of the production group, and that the resolution of the problem is more likely to be sought by independent occupational means than by united action with other steelworkers. This raises the question of how far Ironhill management would be sanctioned by this group if it failed to recognise the separate occupational expectations of craftsmen in the plant. To this extent it would be unrealistic to expect a united labour response to emerge, for example, as a solution to the long-term problems seen by all respondents to exist in the industry at the present time. For craftsmen at any rate these solutions will be posed much more overtly in occupational rather than industrial terms.

Of equal interest is the existence of a second deviant group of sufficient size and importance to suggest that a significant division between types of production workers occurs within this plant. Blastfurnacemen and cokeplant workers are engaged in key areas of direct production activities, and yet in many respects the responses of this group were incongruent with other production staff. Thus the sense of occupational attachment was much more strongly developed and compatible in terms of its intensity with that exhibited by craft workers. Like craft workers also, blastfurnacemen and cokeplant workers were likely to view employer-employee relations in more dichotomous terms than other production staff. It was, however, in terms of their responses to questions on attachment to steel employment and to residence in the local community that this group diverged most clearly from other groups. Whilst the group reported the highest

(1) W.H. Scott op.cit.

level of satisfaction with residence in the Ironhill community, it also exhibited the highest degree of negative attachment to steel employment as the direct result of an absence of alternative employment opportunities in the area. Given, however, a range of responses to tests of job satisfaction somewhere between the more favourable attitudes of I.S.T.C. production staff and the less favourable attitudes of craft workers (see Table 22) it appeared that the source of this group's discontent was in the poor extrinsic as opposed to the relatively good intrinsic rewards derived from work. One explanation for the group's negative attachment to work, therefore, might be found in the existence of the pay differential between other production workers and themselves referred to in the previous chapter. If this were the case then the low level of attachment to steel employment could reflect the belief that this type of production work carried rewards of such poor quality as to sustain only a marginal attachment. Yet, as we have seen, the status ascribed to the group is by no means low; moreover its members demonstrate a well developed sense of occupational awareness.

It is the case that blastfurnacemen and cokeplant workers in common with other production employees occupy roles within the industry which are relatively specific and not readily transferable. Moreover the particular skills of blastfurnace work suggest that once located in a seniority line these workers will find it progressively more difficult to transfer to other parts of the plant without serious loss of seniority and its associated rewards. Certainly the difficulties of job mobility within the Ironhill area are most keenly perceived by this group. Faced with these apparently intractable problems, and given the strength of their occupational identification, it is perhaps surprising that blastfurnace workers have accepted their relatively deprived condition without complaint over such a long period.

(e) Occupational influence over control

Finally, in order to test the extent to which occupational differences existed over actual and ideal perceptions of the distribution of influence, occupational orientations to the distribution of control between key strata of the industrial hierarchy and between key areas of work control were measured. The results are shown in Table 23.

An average weighted score for respondents' judgements of the distribution of influence of control between key strata of the occupational hierarchy was derived from the data in Table 23. The results are shown in Table 24. These scores are plotted on a control graph (see figure 6). It will be observed that occupational orientations towards the existing and ideal distribution of influence over the control of work tended to move in similar directions, indicating a relatively high degree of value consensus in this area. Clearly all three occupational categories sought an expansion in the existing distribution of control over work organisation for all ranks of the occupational hierarchy including management. The profiles of ideal distribution indicate considerable support for some form of bilateral control. Even under ideal circumstances, however, managerial influence is perceived to be considerably higher than the influence to be accorded to trade union representatives. Nevertheless two distinctive peaks of influence are sought in ideal terms for management (but especially plant management) and full time trade union officials. It will also be noted that in the case of all three occupational groups the influence of clerical staff is rated under ideal circumstances as lower than that of manual employees.

Table 23: Occupational Orientations to the Actual and Ideal Distribution of Influence over Control between Key Strata of the Occupational Hierarchy

(a) Perception of Actual (existing) Control at Ironhill

Position	Degree of Influence														
	Production/Service				Blastfurnacemen/Cokeplant				Craft Maintenance						
	Great Deal Nos	Quite a Bit Nos	Very Little at all Nos	Total Nos	Great Deal Nos	Quite a Bit Nos	Very Little at all Nos	Total Nos	Great Deal Nos	Quite a Bit Nos	Very Little at all Nos	Total Nos			
British Steel Corporation Top Management	63	20	9	0	92	18	7	3	0	28	23	15	5	1	44
Divisional Management	65	35	5	0	105	18	9	1	0	28	26	15	2	0	43
Ironhill Management	37	44	19	1	101	11	10	6	1	28	10	25	5	0	40
Foremen	4	36	47	13	100	2	4	13	8	27	1	15	23	4	43
Trade Union Officials	15	52	28	11	106	7	10	9	3	29	6	16	17	3	42
Shop Stewards	5	52	36	11	104	6	8	11	3	28	2	20	18	3	43
Manual Workers	3	21	44	35	103	2	2	7	18	29	2	8	19	15	44
Clerical Workers	3	26	44	29	102	0	5	6	16	27	0	8	18	17	43

(b) Perceived distribution of influence under ideal circumstances

Position	Degree of Influence														
	Production/Service				Blastfurnacemen/Cokeplant				Craft Maintenance						
	Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.	Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.	Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.
British Steel Corporation Top Management	43	38	15	5	101	12	10	4	2	28	14	22	4	2	42
Divisional Management	50	42	6	2	100	13	13	1	0	27	22	19	2	0	43
Ironhill Management	81	18	4	4	103	25	3	1	0	28	29	13	1	0	43
Foremen	13	56	20	8	97	2	15	7	1	25	3	28	10	1	42
Trade Union Officials	40	52	7	3	102	12	13	3	0	28	11	26	5	1	43
Shop Stewards	21	63	10	7	101	6	18	2	1	27	7	27	7	2	43
Manual Workers	15	56	26	13	101	6	12	2	3	23	3	22	13	4	42
Clerical Workers	5	48	34	12	99	1	10	7	8	26	2	14	19	8	43

Table 24: Orientations to Control: Average Weighted Perceived Distribution of Influence over Control between Key Strata of the Occupational Hierarchy at Ironhill under Existing and Ideal Conditions

(a) Perceived Distribution of Influence at the Present Time

Position	Production/ Service	Blastfurnacemen/ Cokeplant	Craft Maintenance
	Index	Index	Index
British Steel Corporation Management	2.6	2.5	2.3
Divisional Management	2.6	2.6	2.6
Ironhill Management	2.1	2.1	2.1
Foremen	1.3	1.0	1.3
Trade Union Officials	1.7	1.7	1.6
Shop Stewards	1.5	1.6	1.5
Manual Workers	0.9	0.6	0.9
Clerical Workers	1.0	0.6	0.9

(b) Perceived Distribution of Influence in Ideal Circumstances

Position	Production/ Service	Blastfurnacemen/ Cokeplant	Craft Maintenance
	Index	Index	Index
British Steel Corporation Management	2.2	1.1	2.2
Divisional Management	2.4	2.4	2.5
Ironhill Management	2.7	2.9	2.6
Foremen	1.8	1.7	1.8
Trade Union Officials	2.3	2.3	2.1
Shop Stewards	2.0	2.1	1.9
Manual Workers	1.8	1.8	1.6
Clerical Workers	1.6	1.2	1.2

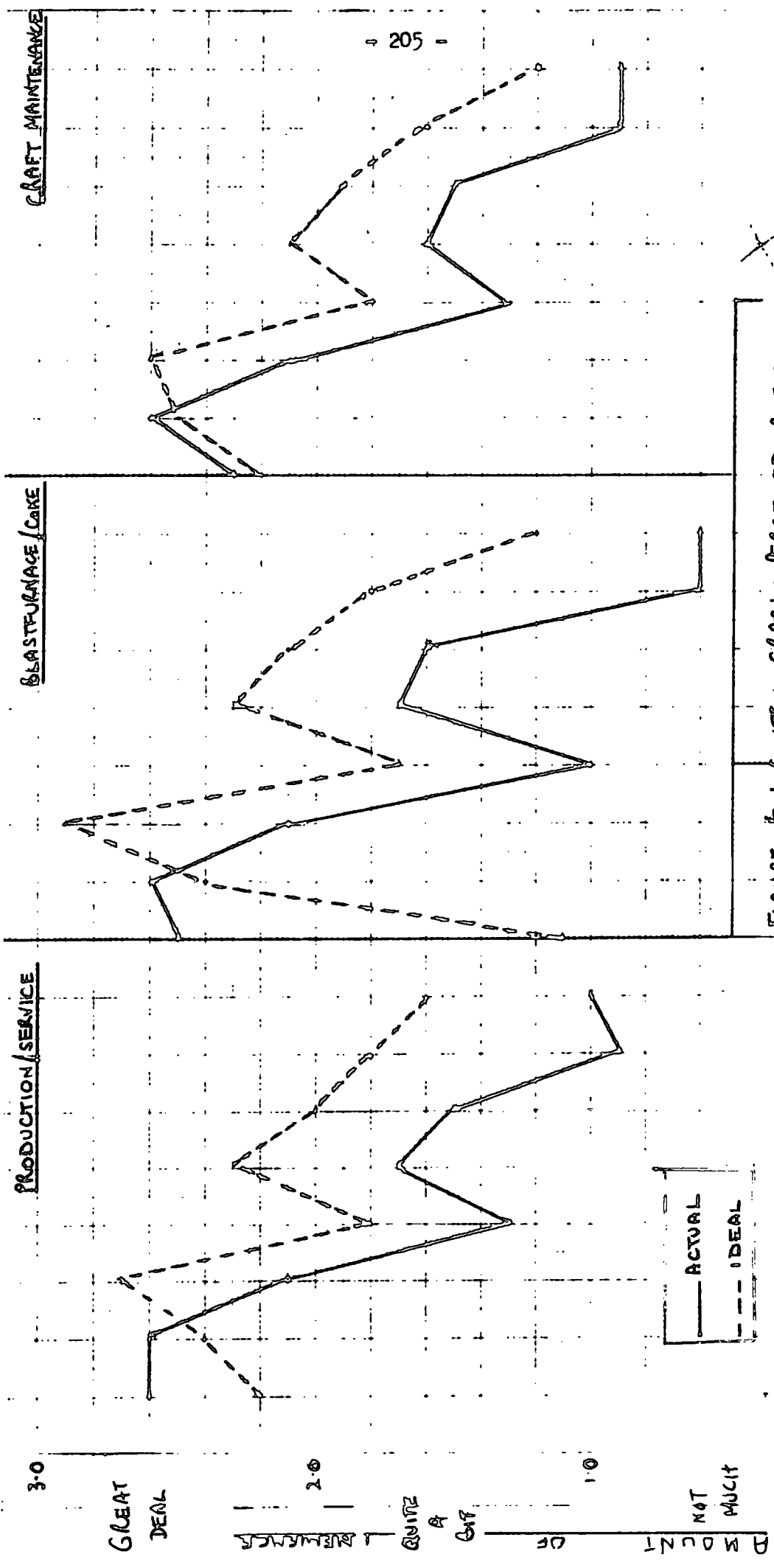


FIGURE 6: CONTROL GRAPH: RECEIVED ACTUAL AND IDEAL DISTRIBUTION OF INFLUENCE AVER CONTROL BY OCCUPATIONAL CATEGORIES

- HIERARCHICAL LEVELS OF CONTROL
- ②
 - TOP MGT. (a)
 - SSC DIV. MGT. (b)
 - SSC MGT. (c)
 - REGIONAL MGMT. (d)
 - REGIONAL FULL TIME T.O. OFFICERS (e)
 - REGIONAL SHOP STEWARDS (f)
 - REGIONAL WORKERS (g)
 - REGIONAL GENERAL SERVICES (h)

DATE

In spite of this broad convergence of occupational orientations to control, one important difference emerged to distinguish blastfurnace/cokeplant staff from the rest. Whilst all three occupations sought a considerable increase in influence in the hands of local plant management and a contraction of influence in the hands of the higher echelons of the industry's management, this was much more pronounced in the case of blastfurnace/cokeplant respondents.

An average weighted score for respondents' judgements of the distribution of influence over the control of particular work activities was derived from the data obtained in Table 25. The results are shown in Table 26.

It will be apparent from these tables and from the control graph that occupational perceptions of existing influence show important similarities and indicate a relatively high degree of value consensus in this area. If comparisons are made between the three groups on the basis of their perceptions of the most important areas of control at the present time, the results indicated in Table 27 are obtained.

Table 25: Occupational Orientations to the Perceived Actual and Ideal Distribution of Control over Key Work Areas

(a) Perceived Distribution of Influence at the Present Time

Category	Work area	Degree of Influence														
		Production/Service				Blastfurnacemen/Cokeplant				Craft Maintenance						
		Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.	Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.	Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.
Workpace	a	31	48	18	6	103	11	12	5	5	33	9	23	9	2	43
Safety	b	34	38	29	5	106	8	13	8	4	33	12	22	7	1	42
Finance	c	15	37	37	17	106	2	9	9	12	32	1	19	18	5	43
Suggestions	d	4	19	35	44	102	0	3	6	22	31	2	3	18	20	43
Discipline	e	14	32	35	25	106	2	5	7	18	32	1	13	16	13	43
Pay rates	f	18	32	39	15	104	2	11	12	5	30	4	18	16	6	44
Overtime	g	13	41	24	24	102	4	9	7	12	32	4	16	12	10	42
Work study	h	5	28	30	38	101	0	7	10	15	32	3	24	10	7	44
Recruitment	i	11	18	24	50	103	0	0	6	25	31	2	13	15	14	44
Redundancy	j	12	33	24	31	100	3	11	8	9	31	2	19	11	11	43
Transfers	k	12	30	30	29	101	3	6	10	13	32	3	13	13	14	43
Selection	l	31	31	14	29	105	11	9	6	7	33	3	12	10	18	43
Purchases	m	10	15	16	61	102	1	2	5	25	33	3	10	13	18	44

For a full description of the work areas see Table 14

(b) Perceived Distribution of Influence under Ideal Circumstances

Category	Work area	Degree of Influence														
		Production/Service				Blastfurnacemen/Cokeplant				Craft Maintenance						
		Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.	Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.	Great Deal Nos.	Quite a Bit Nos.	Very Little Nos.	None at all Nos.	Total Nos.
Workpace	a	42	42	7	5	96	13	14	4	0	31	23	19	1	0	43
Safety	b	64	29	4	2	99	21	6	3	2	32	33	11	0	0	44
Finance	c	18	46	18	12	94	4	11	6	11	32	6	22	13	2	43
Suggestions	d	28	50	12	6	96	9	12	8	3	32	12	25	4	2	43
Discipline	e	30	39	17	11	97	9	9	5	10	33	9	26	5	4	44
Pay rates	f	53	31	8	2	94	19	8	5	1	33	25	16	2	0	43
Overtime	g	24	52	13	6	95	9	10	6	8	33	19	18	4	2	43
Work study	h	35	42	12	5	94	9	13	5	4	31	25	14	2	2	43
Recruitment	i	24	42	19	12	97	6	9	8	8	31	10	21	8	5	44
Redundancy	j	46	31	12	6	95	15	8	4	2	29	17	19	3	4	43
Transfer	k	38	37	12	6	93	11	11	4	4	30	18	20	4	2	44
Selection	l	47	33	8	8	96	14	10	2	5	31	18	19	5	2	44
Purchases	m	24	54	14	7	99	10	13	2	6	31	12	25	5	2	44

For a full description of the work areas see Table 14

Table 26: Orientations to Control: Average Weighted Perceived Distribution of Influence over the Control of Selected Work Areas under Existing and Ideal Conditions

Category	Work area	Actual Index			Ideal Index		
		Production/ Service	Blastfurnacemen/ Cokeplant	Craft Maintenance	Production/ Service	Blastfurnacemen/ Cokeplant	Craft Maintenance
Control over:							
Workpace	a	2.0	1.9	2.1	2.3	2.3	2.5
Safety	b	2.0	1.8	2.0	2.6	2.4	2.8
Finance	c	0.8	0.4	0.7	1.7	1.3	1.6
Suggestions	d	1.5	1.0	1.4	2.0	1.5	2.1
Discipline	e	1.3	0.7	1.1	1.9	1.5	1.9
Pay rates	f	1.5	1.3	1.5	2.4	2.4	2.5
Overtime	g	1.4	1.2	1.3	2.0	1.6	2.3
Work study	h	1.0	0.8	1.5	2.1	1.9	2.4
Recruitment	i	0.9	0.2	1.0	1.8	1.4	1.8
Redundancy	j	1.3	1.3	1.3	1.9	2.2	2.1
Transfer	k	1.2	1.0	1.1	1.8	1.6	2.2
Selection	l	1.6	1.7	1.2	2.2	2.1	2.2
Purchases	m	0.7	0.4	1.0	1.1	1.8	2.1

These results are plotted on a control graph (see figure 7.)
For a full description of the work areas see Table 14

PRODUCTION/SERVICE

BLAST FURNACE / COKE

3.0
GREAT DEAL
2.0
SOME
1.0
VERY LITTLE
0.0

— ACTUAL
- - - IDEAL

INFLUENCE OF PERCENT

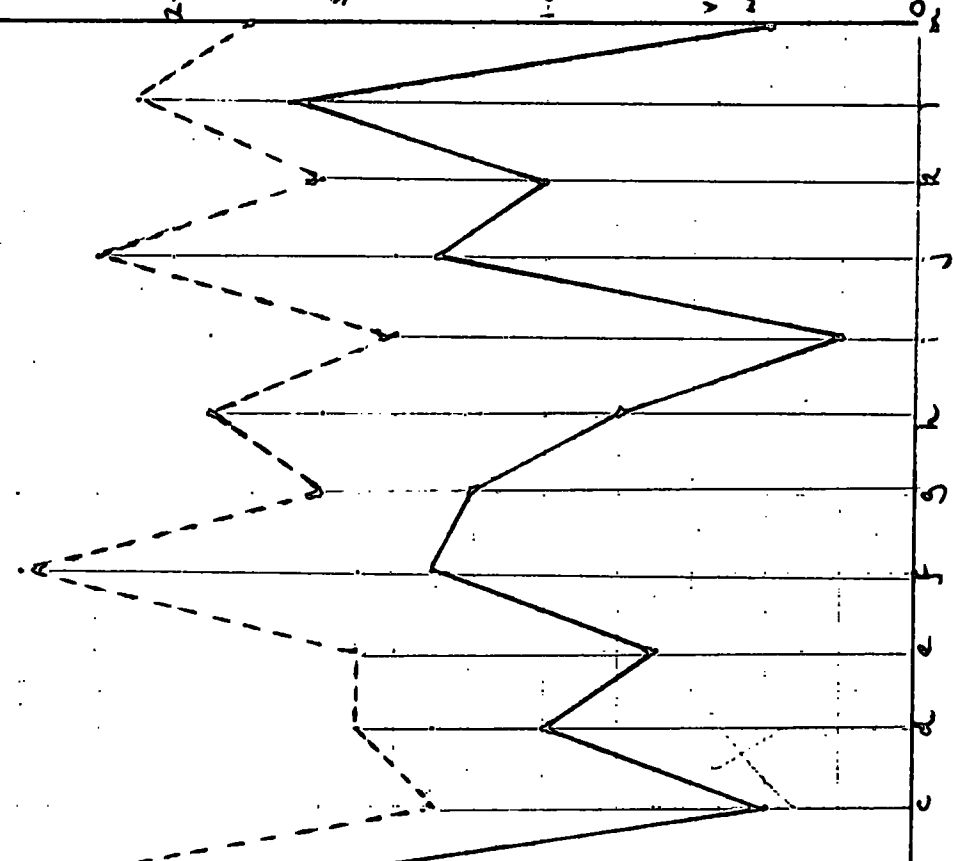
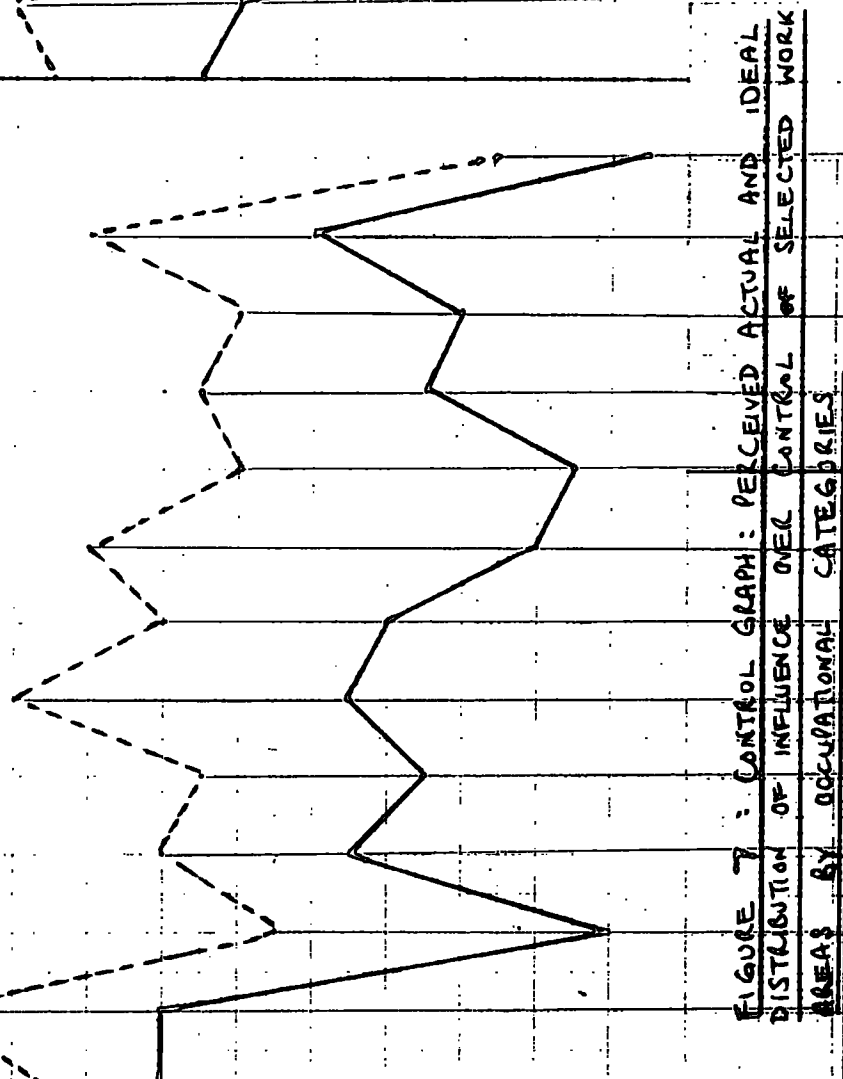


FIGURE 7 : CONTROL GRAPH : PERCEIVED ACTUAL AND IDEAL DISTRIBUTION OF INFLUENCE OVER CONTROL OF SELECTED WORK AREAS BY OCCUPATIONAL CATEGORIES

FACE SAFETY FINANCE DEPT. DISCIPLINE PAY OVERTIME WORK BELONGING AHEAD- TRAINED SELECTED OCCASIONALLY
STANDARD WORK AREAS
SELECTED WORK AREAS

(FOR FULL KEY TO LETTERS SEE TABLE 14)

FOR CLART MAINTENANCE SEE
NEXT PAGE

ARMONIA INFLUENCE

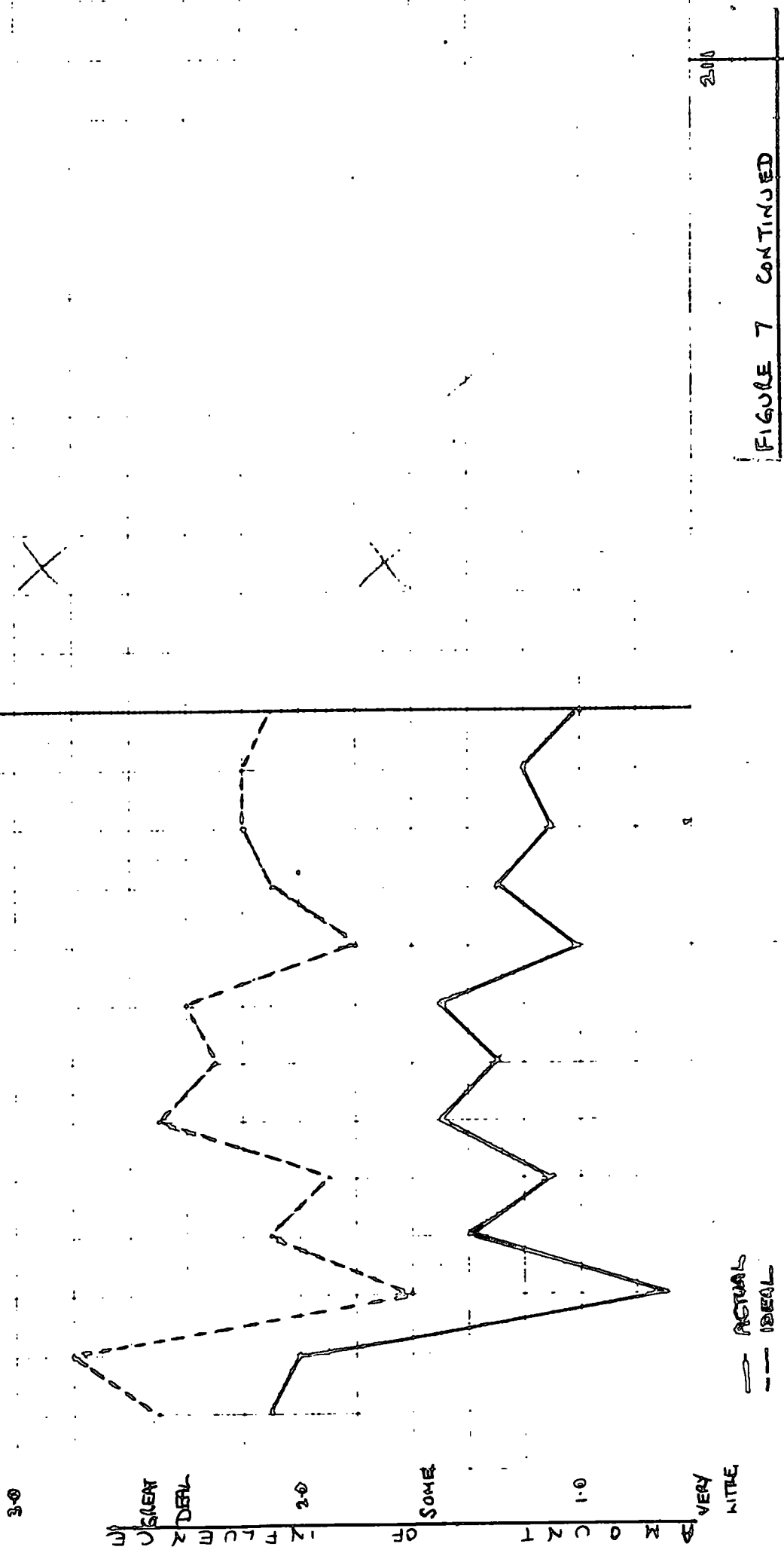


FIGURE 7 CONTINUED

CRAFT MAINTENANCE

a b c d e f g h i j r l m

SELECTED WORK AREAS
(KEY TO LETTERS SEE TABLE 14)

Table 27: Comparative analysis of the most important areas of work control at the present time

Areas of high existing influence:

<u>Production/Service</u>	<u>Blastfurnacemen/Cokeplant</u>	<u>Craft Maintenance</u>
(1) Workspace	(1) Workspace	(1) Workspace
(2) Safety	(2) Safety	(2) Safety
(3) Selection of men to positions within seniority lines	(3) Selection of men to positions within seniority lines	(3) Pay rates Fixing work standards by job evaluation and work study

Workspace, safety and selection to positions within seniority lines are the main work areas in which production workers rate their existing influence as high. Indeed control over workspace emerges as the most important area for all three occupational groups. Craftsmen diverge slightly only in respect of their third choice which is shared equally between relatively high control over pay rates and the fixing of work standards by such techniques as job evaluation and work study.

Similarly a comparison of the work areas perceived to be most important under ideal circumstances reveals a high degree of common identification between the three occupational groups, as is shown below:

Table 28: Comparative analysis of the most important areas of work control under ideal circumstances

Areas of high ideal influence

<u>Production/Service</u>	<u>Blastfurnacemen/Cokeplant</u>	<u>Craft Maintenance</u>
(1) Safety	(1) Safety	(1) Safety
(2) Workspace	(2) Pay rates	(2) Workspace
(3) Selection of men to positions within seniority lines	(3) Workspace	(3) Pay rates

The implications of these results for the quality of individual attachment to steel employment, as well as the stability of work control are important. It will be noted that the major areas of desired influence over control are similar to those in which existing control is also high, especially in the areas of workspace, safety and selection. Of equal interest is the extent to which both existing and ideal preferences overlap occupational boundaries. Quite clearly the level of inter-occupational agreement upon what constitutes the present and ideal distribution of influence over work control is extremely high and provides a well-defined series of common reference points and criteria for evaluating both the present and the future arrangements for the control of work in this plant.

On the other hand, the data which can be extracted from control graph analysis in this area provides important insights into possible areas of strain and instability in the control system. Table 29 outlines the results of an inter-occupational comparison of the differences between existing and ideal perceptions of the distribution of influence over control of selected work areas.

It will be observed initially that the differences reported by production/service employees are somewhat lower than those reported by the other occupational groups. This would suggest the possibility that production workers are somewhat more satisfied with existing arrangements than blastfurnace/cokeplant and craft maintenance crews. With regard to particular areas of strain, however, it appears that wide inter-occupational variations exist over the transfer of labour between departments as the result of technical change, the selection of men to positions within seniority lines and the purchasing of departmental items of machinery and equipment. In the first two cases, craftsmen exhibited a distinctively high index whilst in the third both craft and blastfurnace/cokeplant groups diverged markedly from production/service groups. Elsewhere on the subjects of overtime and recruitment, divergencies

Table 29: Comparative analysis of differences between existing and ideal distribution of work control in selected work areas

Category	Work area	Production/Service	Blastfurnacemen/Cokeplant	Craft Maintenance
		Index	Index	Index
Workpace	a	0.3	0.6	0.4
Safety	b	0.6	0.6	0.8
Finance	c	0.9	0.9	0.9
Suggestions	d	0.5	0.5	0.7
Discipline	e	0.6	0.8	0.8
Pay rates	f	0.9	1.1	1.0
Overtime	g	0.6	0.4	1.0
Work study	h	1.1	1.1	0.9
Recruitment	i	0.9	1.2	0.8
Redundancy	j	0.6	0.9	0.8
Transfer	k	0.6	0.6	1.1
Selection	l	0.6	0.4	1.0
Purchases	m	0.4	1.4	1.1

For a full description of the work areas see Table 14

appeared between craftsmen and the rest in the first case, and between blastfurnace/cokeplant workers and the rest in the second. The existence of strain in these areas indicates either marked divergencies in work practices between occupations, or differences in expectations, or both. Whatever the cause it is apparent that potential sources of inter-occupational conflict over these differentials exist and that these may be expressed in the form of grievance activity either with management or with other occupations within the same labour force. What is important in the last analysis is to demonstrate the co-existence of both areas of value consensus uniting the labour force (and even labour with management in certain respects) with areas of possible conflict within the same system of control.

Conclusion

In this chapter we have been concerned with the analysis of the results of the manual workers survey at Ironhill. Particular attention has been given to the ways in which the measurement of attitudes to steelwork by manual workers and the application of control graph techniques to the measurement of the perceived distribution of influence over work control complement the wider analysis in Chapter IV of the interaction of social and system constraints in the development of stable and effective control systems in industrial organisations.

It will be recalled that the dimensions of an analytical model which conceptualised the pattern of constraints influencing the process of control were outlined in the concluding section of the third chapter. There we argued that the most realistic framework for the analysis of the control process was one which explained continuity and change in this process as a response to both systems and social constraints. Whilst the first two variables of the model—managerial and labour values—defined the scope and content of the control process over time—the second two—system and actor—defined the parameters within which the control process must move if it is

to remain stable and effective. It followed that stability would be achieved where variations in the scope and content of the control process remained compatible with the changing systems requirements of the organisation and the changing social requirements of the actors involved. It followed also that a stable state of the control system existed where the separate, and sometimes conflicting, interests of the members of industrial coalitions were maximised through cooperation within these boundaries.

To some extent the data derived from the survey and the analysis of this data provide useful insights into both the nature of management-labour and the actor components of this model. In the first part of this chapter it was argued that the conduct of management-labour relations at Ironhill were conducted within a framework of shared values which had the effect of minimising recurrent and disruptive industrial conflict. It was noted, for example, that a relatively high degree of consensus existed within the labour force on the state of the plant's current and prospective business performance, and the implications of this for individual security. At the same time considerable agreement existed amongst respondents about the nature of the existing and ideal profile of work control as well as the desirable level of participation of particular groups in the plant hierarchy in the control system. Perhaps the major conclusion to emerge was the belief of most respondents that the plant system of control at Ironhill was capable under ideal conditions of sustaining a high degree of reciprocal influence. Of particular importance also was the fact that the most significant areas of desired work control were those in which a substantial degree of control already existed in the present situation. In this respect it can be argued with some conviction that the effectiveness and stability of the control process in this plant resulted predominantly from the existence of a distinctive pattern of management-labour relations in which the control of work was essentially bilateral in character. This particular pattern was observed

to exist in the present situation and was clearly seen to form the basis of future developments in industrial relations practices in this plant.

At the same time it is our contention that the character of the control process at Ironhill has been shaped in important respects by the pattern of relationships linking actors to their jobs, occupations and residential communities. Whilst in some respects the steelworker was orientated towards employment "dichotomously", the predisposing features isolated in the job and work situations of most respondents appeared to counteract, or at least to retard, the development of two monolithic and opposed management and labour organisations. The social and occupational values deriving from a form of work activity in which individual discretion and autonomy appeared to be high and which offered unusually good promotion prospects within the ranks of manual work constrained and defined the most appropriate means for these steelworkers to protect their interests. Whilst steelworkers, in common with most other manual workers, believed that they must "fight for every improvement in their conditions", the rules governing this "fight" were not only well understood and accepted by the participants but also were jointly derived by both management and unions in those areas which were seen to be crucial to the interests of both parties. It is our contention that the process of bilateral rule-making in certain important areas of steelwork is not peculiar to Ironhill, but is true of the steel industry in general. Moreover what we have described is not new: in many respects it is a traditional and long-standing technique of control in this industry. The successful planning of change at Ironhill and in the wider industry has been achieved in no small part by the retention and adaptation of these work practices in new technical and organisational situations.

What we can demonstrate, therefore, is the existence of a distinctive attachment to steel-employment by the employees whose attitudes have been considered. We can also point to the existence of an equally distinctive

process of control in which joint rule-making has been, and will continue to be, a central feature. These unifying features of steel employment and its system of control, however, do not operate with equal intensity upon the occupational structure of Ironhill or, presumably, the wider industry. It was in the occupational analysis of respondents' attitudes that the limits of consensus at Ironhill were reached.

The evidence derived from the occupational analysis in the second half of this chapter indicated that whilst production/service employees reported high job and work satisfaction and a cooperative relationship with Ironhill management, craft maintenance and blastfurnace/cokeplant crews diverged in certain important respects. On the subjects of occupational identification and cooperation with management, for example, these two "deviant" categories produced similar results although not perhaps for similar reasons. Both craft and blastfurnace/cokeplant groups were more occupationally conscious of themselves; both groups were less likely to view management-labour relations in terms of teamwork. The line of strain between craft and semi-skilled employees is long-standing for the reasons discussed in this chapter: craft workers are not employed in the main production operations of a steel plant. Hence their rewards are lower than the average earned by many semi-skilled non-apprenticed employees. Moreover production workers move within seniority lines: craftsmen in steel do not. The pressure upon craft unions to close this differential is powerful and a constant source of potential instability in plant industrial relations.

The line of strain between blastfurnace/cokeplant crews and other production workers is equally important and potentially disruptive. These employees also receive average wage rewards which are lower than those paid to some other production grades; at the same time their attachment to steel employment appears to more tenuous. It is significant, for example, that the majority of respondents in this category admitted accepting steel employment

because of the absence of better jobs elsewhere. Of all three groups this category appears most unstable in terms of its relative deprivation compared with other production workers. Surprisingly, however, there is little evidence of manifest conflict between N.U.B. members, management or other occupations at Ironhill. Indeed blastfurnacemen are rated quite highly in terms of occupational prestige by other employees. The explanation may lie in the comparative data summarised in Tables 24 and 26. Here it will be noticed that blastfurnace/cokeplant workers rate the amount of influence wielded by manual workers in both existing and ideal situations as lower than that indicated by the other occupational groups (Table 24). In table 26 it will be observed that blastfurnace/cokeplant respondents consistently produce a lower weighted indices over most of the work areas described compared with production and craft groups in both existing and ideal conditions. This implies the possibility that blastfurnace/cokeplant N.U.B. employees are attached to their jobs and to the plant by more limited expectations and aspirations, reinforced by their relatively lower ratings of existing influence over many work areas at Ironhill. If this were the case it would explain the apparent acquiescence of this group in its present work situation. Why blastfurnacemen should exhibit more limited expectations is not clear. This question calls for more research.

What we have sought to discuss in this chapter is the extent to which joint goals exist between management and labour at Ironhill and the extent to which the cooperative process in this steelplant effectively stabilises the system of work control. We have established that within the ranks of labour there is a widely shared understanding of the need for, and the value of, joint rule-making with management. Our evidence suggested that bilateral control over a range of work areas already existed between management at Ironhill and trade unions or work groups, and was likely to develop further in future. At the same time the limits upon labour consensus

in cooperation with management could be drawn in occupational terms and the sources of future instability in the control system isolated.

In the next chapter we shall explore the problem of stability and instability in the system of control at Ironhill from a different standpoint - that of the non-manual employee in steel. So far we have sought to show how a plant system of control may remain stable over time providing the level of inter-occupational agreement over its utility and equity remains high or because certain occupational groups are sufficiently powerful to maintain the status quo in their favour. Our conclusion is that in the case of Ironhill the level of normative agreement amongst manual workers about the scope, content and participation of labour in the control process was sufficiently high to prevent the latent differences between the occupational categories from expressing themselves in the form of overt conflict. In the next chapter, however, we shall explore the problems of strain between members of the same occupation at Ironhill arising over their relations with their trade union. In this way we shall consider an important source of potential conflict within Ironhill's control system - intra-occupational conflict arising over the effectiveness not of management, but of trade union representation within the control system.

CHAPTER VI

ORIENTATIONS OF NON-MANUAL STAFF TO WORK AND CONTROL

AT IRONHILL

In this final chapter of the case-study it is intended to pay particular attention to the position of clerical employees in the control system at Ironhill. In so doing we shall extend the discussion of employee orientations commenced in the previous chapter to the ranks of non-manual staff. More particularly, however, we shall be concerned with the extent to which the members of one occupation - industrial clerks at Ironhill - diverge over their perceptions of the quality and status of clerical work and the effectiveness of control in this plant. In consequence the analysis which follows permits not only the further exploration of occupational attitudes initiated in the previous chapter (but this time intra as opposed to inter-occupational attitudes), but also the consideration of an important source of potential strain within the control system itself. This arises over the existence of a substantial division of clerical opinion on the appropriateness and effectiveness of their present trade union representation.

The review of the clerk's position at Ironhill, and in the wider industry, serves to illustrate the nature of relationships between manual and certain non-manual employees in steel and the existence of a substantial area of strain between members of one industrial coalition in Ironhill's control system: manual and clerical members of the same trade union - I.S.T.C.⁽¹⁾ However, the problem of effectively attaching clerical employees to an industrial-based union whose membership consists mainly of manual workers has

(1) The material in this chapter is derived from a paper by Peter Bowen and Monica Shaw on "Patterns of White Collar Unionisation in the Steel Industry" Industrial Relations Journal Vol.3 No.2 1972 pp.8-35

far wider implications than the steel industry. The numbers of white-collar workers in steel and in other industries will increase rapidly during the remaining years of this century. Indeed the question of how such employees will react to trade unions is likely to prove one of the more urgent issues facing the labour movement during this period.

The examination of clerical attitudes at Ironhill allows for some consideration of both these local and more general problems. In addition it serves to illuminate certain conceptual issues previously raised in this case study. These concern, first, the effects of social class membership upon trade union attitudes, and thereby upon involvement in the plant system of control and, second, the impact of work and community values upon occupational identification.

It must be emphasised, however, that the focal concern of this chapter is to indicate the nature of a serious latent strain in the control system. The intention is not, therefore, to provide a complete profile of clerical attitudes to all aspects of job and work at Ironhill, but rather to document the existence of potential strain within the clerical labour force, and to consider its wider implications for the stability of the control system of the industry as a whole. In one sense the chapter may be seen simply as a continuation of the occupational analysis commenced in Chapter V. In another it can be taken as providing a particular example of latent strain in the control system which illustrates the prime importance of analysis between rank and file actors (variable 2) and the values of formal trade union organisations representing the interests of actors (variable 4) in the control system. In this way we are able to consider a useful example of potential intra-occupational conflict arising over the effectiveness not of management, but of trade union representation within the control system.

1. ATTITUDE SURVEY OF CLERICAL WORKERS

This survey was conducted in May, 1970. On the basis of a pilot survey, questionnaires were administered to a one in five sample of clerks stratified by age and sex. The response rate was high consisting of 85% completed questionnaires representing the views of 149 clerks.

After 1967 all clerical employees at Ironhill who were not members of I.S.T.C. were required to join in line with British Steel Corporation policy. In fact I.S.T.C. has been representing clerks at Ironhill for some thirty years and had a majority membership of clerical staff prior to nationalisation. All clerks were therefore members of a predominantly manual workers' trade union when this study was conducted. General information concerning the sample is as follows:

Table 1: Distribution of Sample by Age and Sex

Age Category	Number			
	Male	Female	Total in sample	Total in labour force
15 - 20	16	11	27	100
20 - 29	19	24	43	162
30 - 39	14	14	28	48
40 - 49	20	14	34	55
50 - 59	10	26	45	52
60 - 65	-	9		

(a) The Values and Class Identification of the Clerk at Ironhill

Before considering the question of clerical attitudes to, and involvement in, work and the system of control at Ironhill it is worthwhile examining the origins and background of this category of employee and the effects of membership of the Ironhill community upon the values of these workers.

The steel clerk in this area seemed likely to have working class origins and to hold working class values. In a steeltown like Ironhill situated in an area with long traditions of mining and steel, the value of manual work, the pride in steelmaking and the craft status of senior production manual workers is evident. In this context the status of the working class industrial clerk can be expected to be relatively low. At the same time his close proximity to manual workers in work and in the community is likely to encourage favourable attitudes towards trade union membership. The choice of an isolated steel community, therefore, permitted some assessment of how far steel clerks comply with the well defined and widely shared norms governing social behaviour which can be expected to exist in such a community. The expected relationships between the clerk and the steel community was summarised to suggest that clerical employees at Ironhill would identify more with working class than with middle class values; that working class clerks would be committed members of a predominantly manual workers' union; and that these clerks would be satisfied with their jobs and with clerical work, less concerned with personal advancement than with security and holding low expectations of status.

The results confirmed the working class origins of clerks at Ironhill. 81% of their fathers were manual workers and 79% of their fathers had worked in steel or mining. The majority of respondents had lived all their lives in the Ironhill community and had only experienced clerical employment in this plant. There was little evidence to suggest that clerks aspired to move away from housing which ensured a continuing residential attachment to manual

workers. In fact 68% of those expressing an opinion about the Ironhill community said they were happy living in it because of family and friendships. Further questions dealing with the leisure activities of clerks indicated that their reference groups consisted of the family and friends drawn from the working class. When asked to consider these leisure activities which he had in common with management or manual workers or both, the clerk was more likely to identify his range of leisure pursuits with those of manual workers (see Table 2).

Table 2: Perceived Identification of Clerks with Leisure Pursuits of

<u>Management and/or Manual Workers</u>	<u>%</u> (N = 141)
Clerks with management	24.0
Clerks with manual workers	58.0
Clerks with both management and manual workers	17.0
Clerks as a separate group	2.0
	<hr/>
	100.0
	<hr/>

The effect of the main influences emerging from the social surroundings of Ironhill, and which we have interpreted as working class influences, were seen to operate both upon the clerk's educational achievements and upon the value which he attributed to education.

With regard to academic achievement our results are comparable with those of Dale who noted the generally low achievement of industrial clerks.⁽²⁾ 46% of clerks at Ironhill left school at 15 years or earlier and while there was an obvious tendency for younger clerks to stay on longer at school this was not a very pronounced pattern. If we compare the youngest age group of 15 - 20 years with an older age group of 41 - 50 years, it is interesting to note that almost the same proportion in each left school after 15 years. Further evidence on qualifications suggests that those who did stay on at school only did so for one year.

(2) J.R. Dale "The Clerk in Industry" Liverpool University Press, 1962.

Table 3: Qualifications Obtained at School

	% (N = 80)
City and Guilds Certificate and other qualifications	11.25
* GCE O/L, ONC or School Certificate	63.75
* GCE A/L or Higher School Certificates	11.25
CSE	13.75
	100.00

The data shows that only nine clerks achieved A/L or Higher School Certificate. Those who went on to further education after leaving school did so on a purely instrumental basis to achieve a qualification directly related to their work in such areas as typing or book-keeping. 73% were no longer pursuing any form of education and analysis of the data showed that educational experience after school was not related to age. Further questions concerning the clerk's attitudes to education showed that he saw it largely in terms of expediency and had a somewhat narrow view of its utility. Further education was valued only as a vehicle for "getting on" in clerical work.

Further evidence of working-class influences is shown by the attitudes of clerks to promotion. In general they seem curiously passive about their promotion prospects.

Table 4: Promotion Prospects

	Good		No Fixed Opinion		Bad		Totals	
	No.	%	No.	%	No.	%	No.	%
For Clerk himself	21	15.00	65	45.00	55	40.00	141	100.00
For Clerks generally at Ironhill	19	13.00	63	44.00	61	43.00	143	100.00

* Ordinary Level, Advanced Level

As table 4 demonstrates the majority admitted either that chances of promotion were low for themselves and for clerical workers generally at Ironhill or they said they didn't know. Very few saw their chances of promotion as good. Yet when given the opportunity to list ideal characteristics of a job, "good promotion prospects" appeared low in order of priority. This data would seem to reinforce the view that the clerk was not concerned with advancing up the hierarchy into management. That the clerk identified more closely with manual workers than with management can be seen from data in table 5 concerning the clerk's definition of how much say or influence various occupational groups including his own should have over decisions at Ironhill. The majority of clerks placed themselves at a respectful distance from management and on a par with rank and file manual workers.

Table 5: Distribution of Ideal Control between Clerks and Manual Workers at Ironhill as Perceived by Clerks

	Great Deal		Some		Very Little		None		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Rank and File Manual Employees	13	10.00	56	42.00	43	32.00	22	16.00	134	100.00
Clerks	14	11.00	62	46.00	42	31.00	16	12.00	134	100.00

It seems clear from the data presented so far that clerks had been successfully socialized within this tightly-knit community. Clerks accepted the prevailing norms and traditions of Ironhill which derived from the predominance of manual work. In short the data supports the view that we were studying a group of working class clerks in terms of their social origins and present values.

(b) The Clerk and Trade Unionism at Ironhill

Some writers would argue that the real test of working class identification is the extent to which clerical employees feel they have common interests with manual employees which separate them from management and which are expressed in their firm attachment to trade unionism.⁽³⁾ In the case of the steel clerk, however, it could be contended that a more realistic measure would be the extent to which clerical employees at Ironhill either adhere to or resist the norms of a well established manual workers' union which provides an important frame of reference for clerical attitudes to trade unionism. Since we know that I.S.T.C. has a history of co-operation rather than conflict with management in representing manual workers, it would seem that clerical identification with the working class cannot be measured by a willingness for militant action so far as this industry is concerned. The data from the survey indicates that the most important reason given by clerks for joining a trade union was the belief that "clerical workers like any other workers should be represented by a trade union". There was no evidence here of clerks resisting trade union membership or trade union values. When asked to specify three ideal characteristics of a union for clerical staff, particular importance was attached to the value of pay negotiations, collective bargaining and to co-operation rather than conflict with management as table 6 indicates.

Table 6: Three Most Important Characteristics of a Trade Union for Clerks

	<u>No.</u>	<u>Percentage</u>
(1) Negotiating levels of pay	133	31.00
(2) Pursuing a policy of co-operation with management in the planning of change in the industry	70	16.00
(3) Stressing collective bargaining with management	54	13.00
(4) Militant action	40	9.00
(5) Other - (5 more possible choices)	131	31.00
Total	428	100.00

(3) D. Lockwood "The Blackcoated Worker" Allen & Unwin, 1966 p.137

In a separate question 62% of the clerks disagreed with the statement "that strikes are on the increase these days and this is evidence of increasing irresponsibility on the part of employees". It would seem fair to say that the clerk was not against militant action per se, but that it was not a relevant form of action for him. This cannot be taken as evidence for a rejection of "working classness", but rather supports the view that the prevailing values of trade unionism in the steel industry were successfully internalised by clerks at Ironhill. However, while accepting the utility of a trade union as the most appropriate expression of their social class and occupational interests, clerical opinion divided on the form which union representation should take.

Of those who expressed an opinion, 140 respondents out of the total sample of 149, 70 clerks were satisfied with membership of a predominantly manual workers' union and 70 clerks would have preferred completely separate white-collar union representation. In reply to the question "Do you think that membership of a predominantly manual workers' union (i.e. I.S.T.C.) provides adequate representation of the interests of clerical staff?" the following distribution of responses was obtained:-

(a) Yes - the clerical branch of I.S.T.C. in this plant effectively represents the special interests and needs of clerks.	51	} 70
(b) Yes - the interests of manual and non-manual workers are identical and both are adequately represented by I.S.T.C.	19	
(c) No - the clerks have suffered adversely compared with manual workers in obtaining better conditions of work. Completely separate representation would be preferable.	70	
(d) No fixed opinion	9	
Total	<u>149</u>	

For the purpose of making comparisons between the two groups it was decided to label those satisfied with I.S.T.C. representation as Affiliates. Those who preferred separate representation were labelled Non-Affiliates. Since the problem of appropriate trade union representation is long standing in steel it was important to examine the similarities and differences between Affiliates and Non-Affiliates. In many respects the two groups were identical. They were comparable in terms of age, sex and income distributions, educational achievement, promotion prospects and social class membership. Nor was there any evidence to suggest that those seeking separate white-collar representation did so in order to express aspirations of mobility into the ranks of management and the middle class. One example will suffice here. Analysis of data concerning the perceived identification of clerks with the leisure pursuits of management or manual workers showed that Non-Affiliates were much more likely to identify themselves with manual workers than with management:

Table 7: Identification of Affiliates and Non-Affiliates with Leisure Pursuits of Management and/or Manual Workers

	Affiliates		Non-Affiliates	
	No.	%	No.	%
Clerks with Management	26	38.8	7	10.4
Clerks with Manual Workers	28	41.7	51	76.1
Clerks with both Management and Manual Workers	13	19.4	9	13.4
Clerks as a separate group	-	-	-	-
Totals	67	99.9	67	99.9

Neither can it be argued that the Non-Affiliates consisted largely of a group of reluctant joiners of the trade union at the time of nationalisation, since there was no difference as regards length of membership of I.S.T.C. between the two groups.

There were, however, important differences. Analysis of salary distributions showed that whilst the groups could not be distinguished in terms of earnings their levels of satisfaction with existing pay differed considerably. On the subject of the adequacy of present pay for the individual clerk's skill and effort, Affiliates were much more likely to regard this as satisfactory as Table 8 shows.

Table 8: Opinions on the Adequacy of Pay for own Skill and Effort

	Affiliates		Non-Affiliates	
	Number	Percentage	Number	Percentage
Good	31	45.58	9	13.23
No fixed opinion	26	38.23	17	25
Bad	11	16.17	42	61.76
Totals	68	99.98	68	99.99

Evidence suggesting that these differences extended beyond individual dissatisfaction with pay is found in Table 9. Affiliates showed significantly more satisfaction with the adequacy of existing pay for all clerical employees at Ironhill.

Table 9: Opinions on the Adequacy of Pay for all Clerical Employees at Ironhill

	Affiliates	Non-Affiliates
	Percentage (N = 67)	Percentage (N = 69)
Good	52.00	19.00
No fixed opinion	37.00	25.00
Bad	11.00	56.00
Totals	100.00	100.00

It was also significant that when respondents were asked to outline possible improvements in features of the work situation, Non-Affiliates placed the issue of pay higher on their order of priorities. The question now arises as to whether the Non-Affiliates were simply more instrumental (i.e. purely concerned with monetary rewards) in their attachment to work. If this were so the desire for separate union representation would derive from dissatisfaction with the present level of earnings.

However, the general evidence from the questionnaire did not support the view that the Non-Affiliates held a set of distinctively instrumental values. Like the Affiliates they did not favour a dull job with high rates of pay as compensation for uninteresting work, or an undemanding job offering more leisure time. The anxiety which the Non-Affiliates expressed about earnings could not then be taken as evidence of purely extrinsic values such as attachment to work simply by pay. Rather the issue was bound up with concern about the status of their occupation vis a vis manual workers which they saw as undervalued in terms of the payment it received. Clearly Table 10 illustrates considerable discrepancies between the Affiliates and the Non-Affiliates in terms of perceived existing income trends. In particular a much larger percentage of the Non-Affiliates believed that manual workers' incomes were increasing more rapidly than their own.

Table 10: Opinions on Present Trends in Clerical and Manual Workers' Incomes

	Affiliates	Non-Affiliates
	Percentage (N = 65)	Percentage (N = 69)
(1) Both rising	26.00	6.00
(2) Both rising but manual workers' incomes are increasing more rapidly	52.00	84.00
(3) Both rising but clerks' incomes are increasing more rapidly	6.00	-
(4) Both are stable	16.00	10.00
	100.00	100.00

Given these results it was not surprising to find that a similar divergence of clerical opinion existed concerning ideal income trends. As Table 11 demonstrates the Affiliates were more likely to propose increases for both manual and non-manual groups. Non-Affiliates were more inclined to advance the income of clerical workers at the expense of manual workers as items 3 and 4 of this table show.

Table 11: Opinions on Ideal and Trends in Clerical and Manual Workers' Incomes

	Affiliates	Non-Affiliates
	Percentage (N = 66)	Percentage (N = 69)
(1) Both should rise	45.00	25.00
(2) Both should rise but manual workers' incomes should increase more rapidly	6.00	6.00
(3) Both should rise but clerks' incomes should increase more rapidly	32.00	44.00
(4) Manual Workers' incomes should remain stable for a while	17.00	25.00
	100.00	100.00

Satisfaction or dissatisfaction with occupational status has wider implications, however, than consideration of pay. Our evidence suggests that dissatisfaction with status influences judgements about the effectiveness of plant industrial relations as a whole. Table 12 provides one example of the extent to which Affiliates and Non-Affiliates diverge over attitudes towards management and trade unions. It would appear from this data that Affiliates rated the effectiveness of certain aspects of both managerial and trade union performance in this plant at a higher level than did the Non-Affiliates.

Table 12: Attitudes towards Trade Unions and Management: Affiliates and Non-Affiliates

Statements	Agree		Disagree		Totals	
	No.	%	No.	%	No.	%
(1) Ironhill management is good because it is prepared to listen to complaints and to consider suggestions						
Affiliates	60	91.0	6	9.0	66	100.0
Non-Affiliates	31	47.0	35	53.0	66	100.0
(2) The unions in this plant tend to be controlled by cliques so it is difficult for the ordinary member to make his views known						
Affiliates	29	46.0	34	54.0	63	100.0
Non-Affiliates	53	78.0	15	22.0	68	100.0

In wider context, however, both groups recognised the importance of the complementary roles of Ironhill management and trade unions in the maintenance of stable industrial relations. For clerks at Ironhill a desirable pattern of influence over the control or regulation of work activities appeared to be one which accorded a higher degree of mutual influence between managers and trade union officials than was seen to exist at the present time. This information is summarized in the graph on the following page.

It will be observed that both groups, but particularly the Affiliates, sought an expansion of influence for Ironhill management at the expense of senior management especially at the Head Office level. Similarly both groups sought an expansion of influence for full-time trade union officials and shop stewards, but again this was more pronounced by the Affiliates. However, an important division of opinion between Affiliates and Non-Affiliates

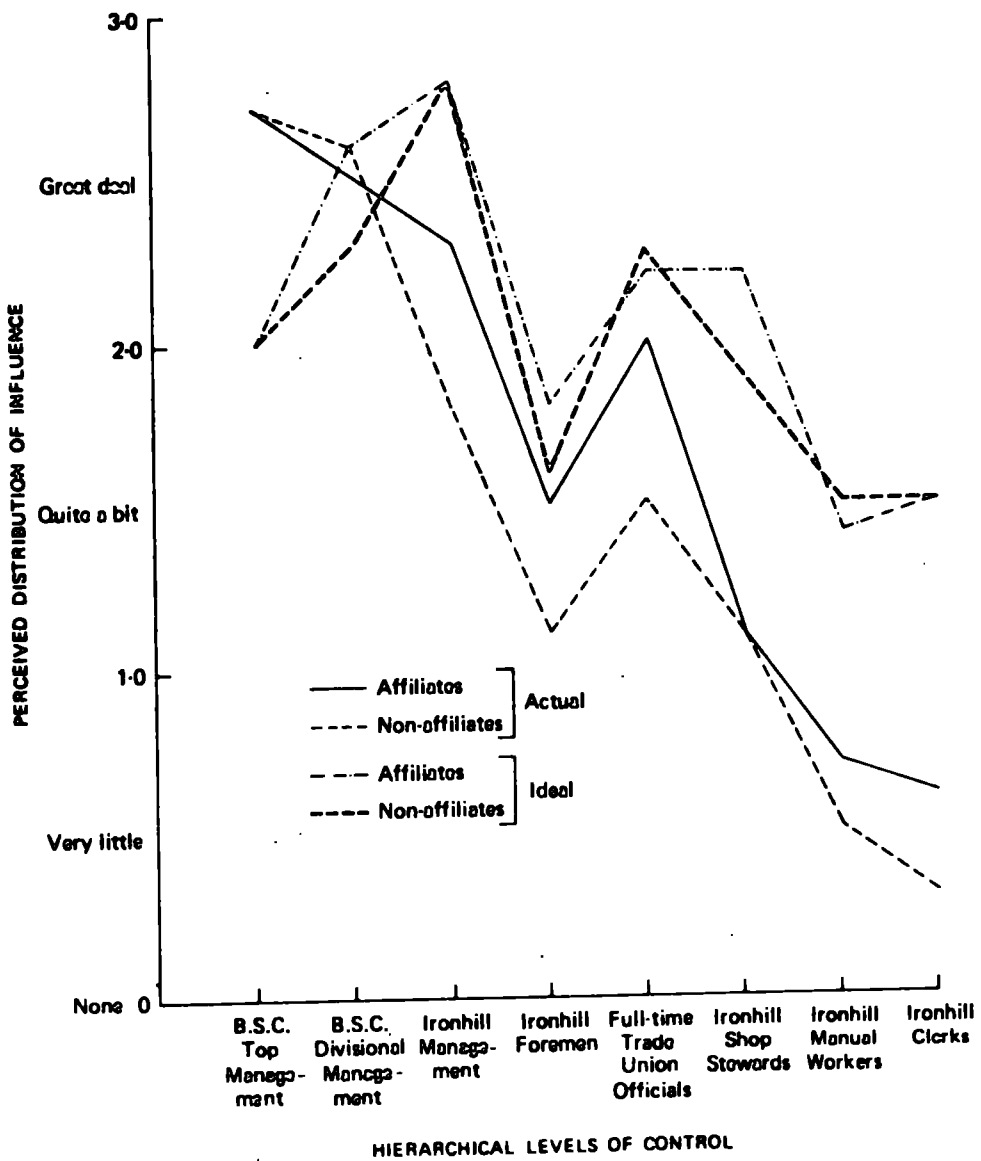


Figure 8 Control Graph: perceived actual and ideal distribution of influence by affiliates and non-affiliates.

Methodological note: The control graph is plotted on points which represent weighted averages of scores across a four-point scale—Good Deal, Quite a Bit, Very Little, None—for each item. The technique of measuring control in this paper follows that of A. S. Tannenbaum in *Control in Organizations*, McGraw-Hill, 1968.

was found to exist over the current influence of trade union officials. The Affiliates' judgement was based on the belief that their trade union was responsible and efficient and that steel's good industrial relations record was attributable to the policies of I.S.T.C.. On the other hand Non-Affiliates were more critical of both existing Ironhill managerial and trade union performance in their joint failure to secure quick settlements of issues at plant level. More particularly the absence of uniform pay and conditions of employment for clerical staff in the industry was a real source of anxiety to Non-Affiliates.

One final observation may be made in conclusion. The graph indicates that the Affiliates rated their own occupational influence over what went on at Ironhill at a higher level than the Non-Affiliates. Given the Non-Affiliate's anxiety over pay vis a vis manual workers, together with his belief that clerical influence at Ironhill is relatively low, it is not surprising that one expression of his dissatisfaction is found in negative attitudes towards his existing trade union representation.

(c) The Clerk and his Job in Steel Employment

How far did the Non-Affiliate's dissatisfaction with the level of payment offered for his skill and effort and his weaker attachment to I.S.T.C. correlate with other attitudes towards his job and work situations?

It was predicted that clerks at Ironhill would be satisfied with their jobs and work, but less concerned with promotion into management than with security of employment. In addition it was felt that clerks working in such a community and work environment would not expect a high status to be conferred upon their occupation.

The data indicated that the security of clerical employment was seen by most clerks to be one of its most attractive features. Once again, however, a division of opinion appeared between Affiliates and Non-Affiliates on aspects of job and work satisfaction. The Non-Affiliate clerk believed

that opportunities existed for using initiative in problem-solving and accepted that adequate recognition was given by supervisors. But they rated opportunities for varied and interesting work, learning new skills, promotion as well as pay, as good. The Affiliates however, rated all these aspects of work, except promotion opportunities, as bad. Some examples of these differences are shown in Table 13.

Table 13: Attitudes towards Job at Ironhill: Affiliates and Non-Affiliates

		Affiliates	Non-Affiliates
		Percentage	Percentage
<u>Clerical work offers opportunities for:</u>			
Promotion	Good	20	10
	No Fixed Opinion	55	35
	Bad	25	55
		<u>100</u>	<u>100</u>
	(N = 67)	(N = 68)	
Learning new skills	Good	23	10
	No Fixed Opinion	59	45
	Bad	18	45
		<u>100</u>	<u>100</u>
	(N = 65)	(N = 69)	
Varied and interesting work	Good	62	35
	No Fixed Opinion	12	22
	Bad	26	43
		<u>100</u>	<u>100</u>
	(N = 68)	(N = 68)	

A similar pattern held with regard to aspects of the wider work situation. Both groups believed that hours of work and holidays were good at Ironhill and that there were satisfactory opportunities for making friendships. The number of Non-Affiliate clerks who agreed that these features of work

were good were, however, always fewer. In general terms the Affiliates seemed more satisfied with most aspects of their job and work situation.

The evidence indicated, moreover, that the dissatisfaction which the Non-Affiliated clerk expressed about his pay, job and work and his union representation was bound up with a more generalised anxiety about the status of clerical work at Ironhill. It was predicted that all clerks at Ironhill would not expect a high status for their occupation because of the value placed on production work in this industry. The data supports this prediction as the following table shows:

Table 14: Attitudes towards Job at Ironhill: Affiliates and Non-Affiliates

		Affiliates	Non-Affiliates
		Percentage	Percentage
Nowadays clerical work no longer provides opportunities for a close relationship with management	True	60	63
	False	40	37
		<hr/> 100	<hr/> 100
		(N = 68)	(N = 70)
Neither management nor manual workers value clerical work very highly because they see it as less important than production work	True	54	85
	False	46	15
		<hr/> 100	<hr/> 100
		(N = 65)	(N = 68)
The clerk is in a better position than manual workers when it comes to promotion	True	41	27
	False	59	73
		<hr/> 100	<hr/> 100
		(N = 70)	(N = 70)

This table illustrates the influence of powerful norms acting upon the clerk's definition of the status of his occupation. It will also be observed that in the last two items of table 14 the Non-Affiliates rated

the present status of clerical work at a much lower level than did the Affiliates. Indeed further questions dealing with the status of clerical work compared with other occupational groups showed that the Affiliates believed it to carry higher status than the Non-Affiliates. Thus the clerk's ability to influence management vis a vis other groups was construed differently by the two groups as Table 15 shows:

Table 15: Clerical Influence with Management Vis a Vis other Occupational Groups at Ironhill

<u>Affiliates</u>	<u>Non-Affiliates</u>
<u>More Influence than Clerks</u>	
Managers	Managers
Foremen	Foremen
Blastfurnacemen	Blastfurnacemen
Crane Drivers	Steel Rollers
	Steel Melters
	Crane Drivers
<u>Same Influence as Clerks</u>	
Steel Rollers	Plumbers
Steel Melters	Electricians
Plumbers	Transport Workers
Electricians	
<u>Less Influence than Clerks</u>	
Transport Workers	Nil

It is interesting to note that both groups of clerks saw certain groups of manual workers as having more influence than themselves, but that the Non-Affiliates perceived their influence with management to be lower vis a vis other groups than did the Affiliates. Thus the anxiety which the Non-Affiliates expressed concerning pay differentials between themselves and manual workers seemed to be related to the view that the clerical occupation was generally undervalued. This does not imply that the Non-Affiliates were striving for a high status vis a vis other groups of workers at Ironhill. Ideally they wanted parity with manual workers in terms of influence. The Affiliates' aspirations were similar, as Figure 8 showed, but the gap between what they saw existing and what they ideally

wanted was much narrower. Thus the Affiliates were more satisfied and less anxious about the status of their occupation. While both groups valued a working environment where all occupational levels would have more influence on policy, and where clerks would have equality with manual workers, the two groups obviously assessed the existing situation very differently.

It seems clear from the data that attachment to the existing trade union varies with attitudes towards job and work. One group of clerks, the Affiliates, enjoys a firm attachment to a predominantly manual workers' union and appears to be relatively satisfied with the rewards and status, albeit low status, which this type of work carries in the Ironhill community. To this extent the Affiliate's relationship with his job, work, trade union, employer and community are consistent and stable. The Affiliate is not simply the acquiescent, uninvolved clerk. He is involved in his union's affairs and he would like more self-determination in work. In this context it was found, for example, that the Affiliates reported a significantly higher record of attendances at union branch meetings as Table 16 indicates.

Table 16: Attendance at Branch Meetings

	Affiliates	Non-Affiliates
	Percentage	Percentage
Always	15.00	6.00
Frequently	32.00	23.00
Infrequently	40.00	38.00
Never	13.00	33.00
	<hr/> 100.00	<hr/> 100.00
	<hr/> (N = 69)	<hr/> (N = 69)

In this case the gap between his perception of actual and ideal rewards from work is not sufficiently wide to create general dissatisfaction with his situation. In many respects the Affiliate conformed to our original

expectations of how the working class clerk in steel might respond. The second group of clerks, the Non-Affiliates, are distinguished by their desire for separate occupational trade union representation. The Non-Affiliate's weaker attachment to membership of a manual workers' union correlates positively with a general dissatisfaction with job and work. Thus his responses, like the Affiliate's, are equally consistent but represent a much more critical view of the existing situation of clerks at Ironhill. By no stretch of the imagination can it be said that clerks at Ironhill form a homogeneous group.

2. CLERKS AND THE CONTROL SYSTEM AT IRONHILL

The problem of what constitutes an effective form of white-collar trade union representation in a basic industry like steel is complex. The study demonstrates that working-class clerks in this plant differ in their assessments of what form trade union representation should take for themselves although there is agreement on the desirability of trade union membership. It might be argued that the resolution of the problem lies in the growth of separate white-collar unions. Conversely it might be argued that the particular problems of the Non-Affiliate clerk would not be overcome by this solution on the grounds that simple structural changes in the pattern of union organisation would not alleviate status anxiety which derives from clerical work. The data, however, suggests that both arguments are inadequate. It must be remembered that 50% of the sample were satisfied members of a predominantly manual worker's union. Thus arguments that clerical work itself produces status anxiety and that separate white-collar union representation is necessary are obviously limited. The problem of how to improve the attachment of the Non-Affiliate clerk to his existing union therefore is best approached by recognising the real source of his status anxiety. This lies in the comparison he makes with manual workers who share membership of the same union but who appear to him to be more effectively represented in terms of the rewards they obtain.

The finding moreover that clerks in one steel plant and in one relatively homogeneous community were divided on what constituted an effective form of union representation is not itself surprising. One could reasonably expect such differences to emerge over attachment to any large and complex organisation. What is of interest, however, is the finding that a relationship exists between the level of trade union attachment and the level of job and work attachment. Whilst all clerks at Ironhill agree on what should constitute an ideal job and work situation for themselves (a finding illustrating the cohesive effect of living in a homogeneous community organised around a steel plant) there is a marked division of opinion about the present status of their work and the rewards to be derived from it. In the case of the Non-Affiliate clerk, where the gap between perceived current rewards and ideal expectations is greatest, here the anxiety over occupational status is most keenly experienced and here the disenchantment with the existing form of trade union representation is most profoundly expressed.

An historical analysis of white-collar unionisation in the steel industry over the last 50 years indicates that the existence of a latent strain amongst clerks at Ironhill over trade union representation is by no means new. The direction of white-collar unionisation in steel has been clearly towards the recruitment of clerical workers within an industry-based union covering both manual and non-manual employees. Nevertheless, specialist white-collar unions have always had a foothold in steel and occupational unionism is well entrenched for certain groups, notably craft employees. The competition between manual and specialist white-collar unions for the clerk's membership is longstanding. Yet it would be misleading to say that the clerk has had much freedom of choice. Indeed the influence of steel employers and steelworkers' unions has been crucial in defining the direction of white-collar representation in the industry.

Clearly the persistence of such strains at Ironhill, and in the wider industry over a long period, has serious implications for the stability and effectiveness of the plant system of control. A sizeable number of rank and file clerical employees are dissatisfied with the effectiveness of their present union representation and the source of this dissatisfaction appears to lie in their attachment to a union consisting predominantly of manual workers. At the same time we noted that the disinclination of the working-class Non-Affiliate clerk to accept attachment to I.S.T.C. was not based upon feelings of antipathy to manual work itself or to identifying with working-class membership. Rather it was the serious undervaluation of his occupational status vis a vis that of manual work in terms of pay and influence with management that appeared to generate the desire for separate trade union representation. It would appear that the solution to the development of effective representation for steel clerks must involve more sympathetic understanding of the occupational interests of this group of employees whose needs have all too frequently been overlooked. Clerical acceptance of a trade union depends in no small part on trade union recognition of their worth (especially where union membership contains both manual and non-manual employment).

At the time of the survey it was concluded that what was required would be the development of a national salary and graded job policy for all clerical employees in the industry. This requirement was subsequently met by negotiated agreements within the various divisions of the British Steel Corporation. These agreements provide for such a graded salary structure controlled by joint committees of management and trade unions. In the North-East coast area of the industry the scheme was implemented in 1971 some twelve months after this study was completed. On the basis of these findings, such a policy should substantially alleviate the status anxieties of Non-Affiliate clerks at Ironhill.

This case-study of steel clerks provides some useful insights into the various influences operating to structure clerical attachment to trade union membership and to the system of control at Ironhill. Community influences were undoubtedly important in structuring positive attitudes towards working-class and trade union identification. Whilst occupational influences sensitised respondents to the value of their clerical skills, the location of these skills within a particular type of community setting appeared to modify the clerk's self-definition of the status of his work compared with that of manual workers. In spite of a general acceptance of the low status of clerical work in this steel community, however, it was the belief by some that the relationship between the rewards of manual and non-manual work had now become unacceptable and it was this deterioration which accounted for the strain between the Affiliate and Non-Affiliate clerk, and ultimately between the manual and non-manual members of I.S.T.C.

These results reinforce the utility of the model outlined in Chapter IV for the analysis of the determinants of stable patterns of plant systems of control. Undoubtedly the existing pattern of control in steel has been shaped in important respects by the activities and values of formal managerial and manual trade union representatives in the industry (including Ironhill) over many years. The mutual involvement of steel employers and manual unions (variables 3 and 4) in promoting the inclusion of clerical employees in predominantly manual workers' unions in this industry has effectively determined the choice of union available to clerks. At the same time analysis of the relationships between rank and file opinion (variable 2) and the control system - reflecting the existing values of management and labour organisations and their representatives - reveals the existence of the latent strains we have detected. That the locus of such strain is found between rank and file employees and their trade union rather than management in this case emphasises the need for the approach we have suggested and for the model which we have sought to apply in this particular study.

CONCLUSION

At the outset we suggested that the focal interest of this study was concerned with the discussion of one simple proposition. This was that the achievement of an effective system of social control in industry depended upon the compatibility of the decisions taken by members of industrial coalitions with the system requirements of the organisation in which they were located and with the social expectations of the actors who were required to legitimise the decisions of industrial coalitions. In this concluding section we shall summarise the findings of the case study and seek to assess their relevance for the theoretical statement of control in industrial organisations outlined in the first part of this work, a fair summary of which would appear to be contained in the previous sentence.

Our interpretation of the data presented in the study of Ironhill suggested that environmental changes in the market and administrative situation of this steelplant had been successfully accommodated by the retention and adaptation of a pattern of social organisation and work practices highly valued by both management and the great majority of its steel employees. The improved business efficiency of the works as a production unit was facilitated to a considerable degree by the effectiveness of this pattern in limiting industrial conflict and in sustaining the opportunities for individuals and groups for job regulation and work involvement. At the same time the data derived from the survey of rank and file attitudes of manual workers indicated that the social organisation and control of steelwork had developed, and was still evolving, along lines which accorded well with the occupational and wider social values of these respondents.

In more general terms it appeared that the achievement of an optimal articulation of the system requirements of the organisation with the interests and social requirements of its members represented a stable, though by no means static, situation of control. This represents, however, an ideal

position against which the real states of organisations, the conditions of their members and the effectiveness of their control processes can be measured. In our view such an analytical approach could well form the basis of a wider theoretical framework for the analysis of industrial behaviour than that currently advanced by the advocates of theories of social action in Industrial Sociology.

What constituted the dimensions of this approach formed the subject matter of the first part of this study. Initially we were concerned to show how a balanced treatment of existing sociological theories might be utilised in the definition of a contextual framework for the analysis of how such systems and actors might be effectively controlled. The two major contexts isolated were those of the environmental constraints of the organisation acting upon its socio-technical system, and the environmental constraints of the actor acting upon his orientation to work and his adaptation to the requirements of his occupational role. These two reciprocal forces were seen to influence the degree of stability and the level of effectiveness of the control process.

The location of the control process within these particular parameters, moreover, prompted the use of a distinctive line of enquiry. If this process was responsive to both systems and social imperatives, what were their effects? The first step of the analysis, therefore, was to consider the influence of environmental effects upon the work organisation per se, upon the arrangement of its technology, its division of labour and its system of authority. In so doing we pursued a line of reasoning already well advanced within one branch of Industrial Sociology: that effective organisational structures and processes of manufacturing firms are causally related to their technologies and thereby to the manifold requirements of their business environments. The implications of this approach are that efficient organisations cannot merely react to the variety of objectives,

pursued by their members. They must also be appropriate in the arrangement and control of their functions to the task requirements of the enterprise. Failure to observe these limitations carries cost-implications for their business success.

The second step of the analysis was to consider the separate but related problem of social integration in industrial organisations. This derived from a consideration of how the values of employees concerning the arrangements made for the control of their work might be formed through exposure to the normative systems of their occupations and residential communities, and as members of the wider society. Here too we pursued an equally well-established but somewhat opposed school of thought to that outlined in the previous paragraph. By considering the values of rank and file participants in industrial organisations and the sources of these values we are led to an entirely different but equally important set of limitations upon the process of control: those stemming from the individual and collective experiences of employees themselves.

This investigation of the contextual framework by the methods described is necessary but incomplete: we need to know more about the interrelations between these systemic and social influences and their effects upon the content of the control system itself. This formed the third step in the sequence of our analysis.

Thus we argued that whilst every enterprise must meet the primary end of an acceptable adjustment with its environment if it is to survive, the means by which this may be achieved are several. Its eventual form in each case depends in no small part upon the outcome of what amounts to a continuous process of bargaining between the representatives of various interest groups, most notably those of the employer (or management) and labour. An important linkage between the analysis of systems and social constraints was found therefore in this area. Since actors are required

to perform interdependent functions specified by the system requirements of the organisation, but need not agree on the form which this interdependence should take, the control of these functions and of their role incumbents is problematical. Nevertheless the outcome of the bargaining process to resolve who does what and for how much in work, and indeed the whole character of the relationship between management and unions, has obvious implications for the ability of the organisation to make effective adjustments to changes in its environment.

We defined the fundamental character of this relationship to be co-operative. This in no way implied unanimity of interests or the absence of conflict. It suggested merely that neither party could expect to achieve its particular interests without a joint working relationship and that this mutual dependence acted as a formidable constraint upon the independent actions of management and labour. The concept of co-operation was introduced, therefore, to express the importance of this interdependent working relationship, a relationship which required the derivation of certain common standards in order to permit the pursuit of separate and frequently conflicting interests.

It followed that the fourth and final stage of analysis was concerned with the form of co-operation between management and labour most likely to promote a stable and effective process of control consistent with the system and social requirement of the organisation and its rank and file members. In order to deal with this question it was necessary to introduce a new concept: the coalition model of organisation. Based upon the notion of the organisation as a plural society, it was argued that whilst the organisations of management and unions represented interest groups with a relatively high degree of autonomy, their essential interdependence required the development of a distinctive form of co-operation which was described as bilateral rule-making. This represented an effective means of extending co-operation within industrial coalitions of management and labour and ones

most likely to accord with the social expectations of rank and file employees especially where this involved the widening of the range of work areas and practices subjected to joint regulation by management and unions. Under these conditions effective social control and organisational performance would be enhanced where the joint power of both the parties was expanded in voluntary and mutually rewarding ways. Indeed the existence of opportunities for trade unions and rank and file employees to influence job and work regulation in ways which do not imply corresponding contractions in the influence of management appears to be an important prerequisite of stable plant control systems. In these respects we suggest that traditional conceptualisations of authority in industry based upon either a model of predominantly unilateral control by management or a predominantly dichotomous model of management-union relations are erroneous. Attention would be more usefully directed towards the conditions under which these parties come to interact on the basis of high reciprocal influence in the regulation of jobs, the control of work and the planning of change.

These four stages of analysis were applied to the situation of Ironhill in the case-study. The adaptiveness of traditional patterns of work organisation to the changing technical and market requirements of the plant was noted. In particular the distinctive function of controlling the division of labour by a relatively light loading of managerial roles together with the retention of seniority lines of promotion for manual workers appeared to be one important factor contributing to both a satisfactory business performance and to the stability of social control in this plant.

The adaptiveness of the steelworkers at Ironhill to the necessity for orderly change in their industry was also noted. The evidence suggested that this response was not the simple expression of a compliant labour force deprived of alternative employment opportunities. Steelworkers in common with other well-organised trade unionists are well aware of the

need to protect their interests against the employer. But steelworkers at Ironhill, despite the homogeneity of their working-class community, have not combined to express these interests divisively at the expense of management, and in this they appear to have much in common with steelworkers elsewhere.

Our findings emphasised that the social and occupational expectations of the majority of Ironhill's labour force found some positive expression and recognition in the opportunities afforded to them by the type of socio-technical system existing in this plant at the time of the study and by the form of co-operation characterising its plant process of control. Undoubtedly the capital-intensive character of the industry and the necessity to maintain high levels of plant loadings has had an important effect upon the pattern of stable industrial relations both at Ironhill and elsewhere. In this respect the industry's performance approximates to that of others operating relatively advanced technologies. That labour costs are a relatively low proportion of total costs has clearly permitted steelworkers some degree of latitude in the negotiation of wage rates and some ability to compensate employees in real terms for their co-operation in programmes of rationalisation involving technical change. Our findings, however, indicated that wage levels alone were unlikely to explain the absence of industrial conflict at Ironhill. Comparisons of the relative sizes of management in this plant with others of similar technical complexity suggested that the traditional and contemporary role of skilled manual labour in steel was distinctive. In this sense the openness of the social organisation of tasks to individual and group involvement, and the openness of the system of social control to mutual influence by both management and labour contributed to the maintenance of stability in employer-employee relationships over a long period.

At the same time the inter and intra-occupational strains which were located indicated the continuing existence of latent and manifest conflict

in areas of the relations between management and employees, between manual and non-manual workers, between groups of manual workers and within particular occupational groups of production and clerical staff. In the case of the last group the occupational anxiety detected amongst clerical staff was directed towards the effectiveness of representation by their trade union within the control system. With these examples we were led to define the boundaries of value consensus within the labour force and to consider the pattern at Ironhill of the inevitable limitations upon the achievement of an ideally effective and stable system of industrial control.

What, hopefully, we can demonstrate is that in terms of our model of control and its application to the situation of industrial organisations like Ironhill, existing sociological theories of systems and social integration can be utilised successfully in the consideration of the determinants of, and constraints upon, stable systems of industrial control.

It is our belief that the exploration of the process of industrial control along these lines might well constitute a worthwhile point of departure for a more grounded Industrial Sociology.

The need for further enquiry in this area is urgent. The experience of large organisations in many fields of social activity such as education, the social services, religion, law and politics indicates the existence of acute pressures for entirely new forms of control to meet the new requirements of organisations and their memberships. Nowhere have these pressures been more keenly experienced in recent years than in industry. Our findings suggest that much can be learned from existing practices in the steel industry about the pattern of industrial relations most likely to succeed in the remaining years of the twentieth century.

BIBLIOGRAPHY

SECTION A: BOOKS

- ALBROW, M. "The Study of Organisations - Objectivity or Bias?" Penguin Social Sciences Survey, 1968.
- ARGYRIS, C. "Personality and Organisation", Harper, 1957.
- BALDAMUS, W. "Efficiency and Effort", Tavistock, 1961.
- BANKS, J.A. "Marxist Sociology in Action", Faber and Faber, 1970.
- BERNARD, J. et al "The Nature of Conflict" International Sociological Association, Paris, UNESCO, 1957.
- BRITISH IRON AND STEEL FEDERATION, The Steel Industry. The Stage I Report of the Development Co-ordinating Committee, 1966.
- BRITISH LABOUR STATISTICS HISTORICAL ABSTRACT 1886 - 1968, Department of Employment and Productivity, HMSO 1971
- BRITISH STEEL CORPORATION: ANNUAL REPORTS AND ACCOUNTS, 1967 - 1968.
- BURNS, T. and STALKER, G.M. "The Management of Innovation", Tavistock, 1961
- CARR, J.C. and TAPLIN, W. "A History of the British Steel Industry" Blackwell, 1962.
- CHAMBERLAIN, N.W. "Unions and the Managerial Process" in C.R. Walker "Technology, Industry and Man", McGraw-Hill, 1968.
- CHAMBERLAIN, N.W. and KUHN, J.W. "Conjunctive and Co-operative Bargaining" in "Collective Bargaining" ed. A. Flanders, Penguin, 1969.
- CHILD, J. "The Business Enterprise in Modern Industrial Society" Collier Macmillan, 1969.
- CLEGG, H.A. "The System of Industrial Relations in Great Britain" Blackwell, 1970.
- COHEN, P.S. "Modern Social Theory", Heinemann, 1968.
- COSER, L. "The Functions of Social Conflict" Routledge and Kegan Paul, 1956.
- CUNNISON, S. "Wages and Work Allocation" Tavistock, 1966.
- CYERT, R.M. and MARCH, J.G. "A Behavioural Theory of Organisational Objectives" in M. Haire ed. "Modern Organisation Theory" Wiley, 1967.
- DAHRENDORF, R. "Class and Class Conflict in Industrial Society" Routledge, Kegan and Paul, 1959.
- DALE, J.R. "The Clerk in Industry" Liverpool University Press, 1962.
- DEPARTMENT FOR EMPLOYMENT AND PRODUCTIVITY "In Place of Strife - a Policy for Industrial Relations" Cmmd 3888, HMSO, 1969.
- DUNLOP, J.C. "Industrial Relations Systems" Holt, 1958.
- ELDRIDGE, J.E.T. "Industrial Disputes" Routledge and Kegan Paul, 1968.
- EMERY, F.E. "Characteristics of Socio-technical Systems" Tavistock Institute of Human Relations Document No.527, 196
- ETZIONI, A. "The Comparative Analysis of Complex Organisations" Collier-Macmillan (Free Press) 1961.

- FOX, A. "Sociology of Work in Industry" Collier-Macmillan 1971.
- FOX, A. "Industrial Sociology and Industrial Relations" Research Paper No.3 Royal Commission on Trade Unions and Employers' Associations, HMSO 1966.
- FOX, A. "Labour Utilisation and Industrial Relations" in D. Pym ed. "Industrial Society: Social Sciences in Management", Penguin 1969.
- FURSTENBURG, F. "Structural Changes in the Working Class" in "Social Stratification" ed. J.A. Jackson, Cambridge, 1968.
- GOLDTHORPE, J.H. "The Affluent Worker: Industrial Attitudes and Behaviour" Cambridge, 1968.
- HAMILTON, R.F. "The Behaviour and Values of Skilled Workers" in A. Shostak and W. Comberg "Blue Collar World" Prentice-Hall, 1964.
- HOLLOWELL, P. "The Lorry Driver" Routledge and Kegan Paul, 1968.
- HUGHES, E.C. "Men and Their Work" Free Press, 1958.
- KNOWLES, K.G.J.C. "Strikes - a Study in Industrial Conflict", Oxford, 1952.
- LIKERT, R. "New Patterns of Management" McGraw-Hill, 1961.
- LOCKWOOD, D. "Social Integration and System Integration" in G.K. Zollschan and W. Hirsch "Explorations in Social Change" Routledge & Kegan Paul, 1964.
- LOCKWOOD, D. "The Blackcoated Worker" Allen and Unwin, 1966.
- LUPTON, T. "Management and the Social Sciences" Hutchinson, 1966.
- MINISTRY OF LABOUR GAZETTE (various years) 1925 - 1970.
- MOUZELIS, N. "Organisation and Bureaucracy" Routledge and Kegan Paul, 1967.
- PERLMAN, S. "A Theory of the Labour Movement" Kelley, 1949.
- PHELPS BROWN, E.H. "The Growth of British Industrial Relations" Macmillan, 1960.
- PUGH, A. "Men of Steel" ISTC, 1951.
- REEVES, T.K. and WOODWARD, J. "The Study of Managerial Control" in "Industrial Organisation Behaviour and Control" ed. J. Woodward, Oxford 1970.
- REPORT OF ROYAL COMMISSION ON TRADE UNIONS AND EMPLOYERS' ASSOCIATIONS 1965 - 1968. Cmmd. 3623, HMSO 1968.
- REX, J. "Key Problems in Sociological Theory" Routledge and Kegan Paul, 1961.
- RHENMAN, E. "Industrial Democracy and Industrial Management" Tavistock, 1968.
- RICE, A.K. "Productivity and Social Organisation: the Ahmedabad Experiment" Tavistock, 1958.
- ROSS, N. "Workshop Bargaining: a New Approach" Fabian Tract 366, 1966.
- SCHEIN, E. "Organisational Psychology" Prentice Hall, 1965.
- SCOTT, W.H. et al "Coal and Conflict" Liverpool University Press, 1963.
- SELZNICK, P. "T.V.A. and the Grass Roots" Berkeley, California University Press, 1949.
- SIMON, H.A. "Administrative Behaviour" Macmillan, 1947.
- STETTNER, N. "Productivity Bargaining and Industrial Change" Pergamon Press 1969.
- STRAUSS, G. "Some Notes on Power-Equalisation" in H.J. Leavitt (ed.) "The Social Science of Organisations" Prentice-Hall, 1963.

- TABB, J. and GOLDFARB, A. "Workers' Participation in Management - Expectations and Experience" Pergamon Press, 1970.
- TANNENBAUM, A.S. "Control in Organisations" McGraw-Hill, 1968.
- TRIST, E.L. "Organisational Choice" Tavistock, 1963.
- TURNER, H.A. "Labour Relations in the Motor Industry" Allen and Unwin, 1967.
- TURNER, H.A. "The Trend of Strikes" Leeds University Press, 1963.
- VAN DOORN, J.A.A. "Conflict in Formal Organisations" Chapter 7 in "Conflict in Society" ed. A. de Renck and J. Knight: CIBA Foundation Symposium Churchill, 1966.
- WEBER, M. "The Theory of Social and Economic Organisation" Ed. Talcott Parsons, Free Press, 1964
- WOODWARD, J. "Industrial Organisation" Oxford, 1965.

SECTION B: PAPERS

- BOWEN, P. and SHAW, M. "Patterns of White Collar Unionisation in the Steel Industry" Industrial Relations Journal Vol.III, No.2, 1972.
- BROWN, E.H.P. and HART, P. "The Share of Wages in National Income" The Economic Journal, Vol.62, 1952.
- BROWN, R.K. "Research and Consultancy in Industrial Enterprises" Sociology Vol.I, No.I, 1967.
- BROWN, R.K. and BRANNEN, P. "Social Relations and Social Perspectives amongst Shipbuilding Workers - A Preliminary Statement". Parts I and II Sociology, Vol.4, No.1, 1970 and No.2, 1970.
- CANNON, I.C. "Ideology and Occupational Community" Sociology Vol.I, No.I, 1967.
- DANIEL, W.W. "Industrial Behaviour and Orientations to Work - A Critique" Journal of Management Studies Vol.6, No.3 October, 1969.
- DAVIS, B. "Organisational Democracy" Journal of Management Studies Vol.4, No.3, 1967.
- DUBIN, R. "Power and Union-Management Relations" Administrative Science Quarterly Vol.2, June, 1957.
- DUBIN, R. "Industrial Workers' Worlds: A Study of the Central Life Interests of Industrial Workers" Social Problems, Vol.3, 1956.
- FAY, S. "Breath of Hope for Steel- - Now the Men can Talk to the Bosses" Sunday Times, 12th April, 1970.
- FLANDERS, A. "Collective Bargaining: a theoretical analysis" British Journal of Industrial Relations Vol.6, No.1, March 1968.
- GOLDTHORPE, J.H. "Orientation to Work and Industrial Behaviour among Assembly Line Operatives". Unpublished paper, 1965.
- HICKSON, D.J. "Convergence in Organisational Theory" Administrative Science Quarterly Vol.11, No.2, September, 1966.
- INGHAM, G. "Organisational Size, Orientation to Work and Industrial Behaviour", Sociology Vol.I, No.3, 1967.

- LAMMERS, C.J. "Power and Participation in Decision-Making in Formal Organisations" *American Journal of Sociology*, Vol.73 No.2, 1967.
- LOCKWOOD, D. "Some Remarks on the Social System" *British Journal of Sociology*, Vol.7, No.2, 1956.
- LOCKWOOD, D. "Sources of Variation in Working Class Images of Society" *Sociological Review*, Vol.14, 1966.
- MORSE, N.C. and REIMER, E. "The Experimental Change of a Major Organisational Variable" *Journal of Abnormal and Social Psychology*, Vol.III, Jan.1956
- PARSONS, T. "Suggestions for a Sociological Approach to the Theory of Organisations" *Administrative Science Quarterly*, Parts I and II, Vol.I, June and September, 1956.
- PARSONS, T. "On the Concept of Political Power" *Proceedings of the American Philosophical Society*, 1963.
- *SCOTT, W.H. et al "Technical Change and Industrial Relations" *University of Liverpool*, 1956.
- SELZNICK, P. "Foundations of the Theory of Organisation" *American Sociological Review* Vol, 13, February, 1948.
- SILVERMAN, D. "Formal Organisations or Industrial Sociology: Towards a Social Action Analysis of Organisations" *Sociology* Vol.2, No.2, May, 1968.
- SMITH, C.G. and TANNENBAUM, A.S. "Organisational Control Structure: A Comparative Analysis" *Human Relations* Vol.16, No.4, 1963.
- SMITH, M.A. "Process Technology and Powerlessness" *British Journal of Sociology*, Vol.19, No.I, 1968.
- STINCHCOMBE, A. "Bureaucratic and Craft Administration of Production" *Administrative Science Quarterly*, Vol.4, 1959
- STONE, R.C. "Conflicting Approaches to the Study of Worker Manager Relations" *Social Forces* Vol.XXXI, 1953.
- TANNENBAUM, A.S., SMITH, C. and ARI, O.N. "Organisational Control Structure and Member Consensus" *American Journal of Sociology* Vol.LXIX No.6, 1964.
- WARREN, K. "Coastal Steelworks - A Case for Argument" *Three Banks Review*, No.82, June, 1969.

*This title should appear in the list of books

APPENDIX A

NEWCASTLE UPON TYNE POLYTECHNIC.

Department of Behavioural Studies

A. PERSONAL DETAILS

Please ring the number corresponding to your answer.

A.1 What is your age?

Under 30	1
30-50	2
Over 50	3

A.2 When did your full-time schooling finish?

At 14 years or earlier	1
At 15	2
Later than 15	3

A.3 Have you gained any educational qualifications?

School Certificate	1
G.C.E. or C.S.E.	2
O.N.C.	3
Other	4
None	5

If other please specify below:

A.4 Have you ever attended any courses while you've been working in the steel industry?

Trade Union courses	1
Management run courses	2
WEA courses	3
Technical College courses	4
None	5

B. EMPLOYMENT DETAILS

B.1 How long have you been in continuous employment at Ironhill?

- Under 2 years 1
- 2 years but under 10 2
- 10 years and over 3

B.2 Have you ever been employed elsewhere than at Ironhill?

- Yes 1
- No 2

If you answered 'No' to Question B.2 please go on to Question B.4.

B.3 Considering only the last job held before working at Ironhill, please describe briefly the kind of work (e.g. "faceworker, mining")

B.4 Have you ever been unemployed (i.e. on the dole)?

- Yes 1
- No 2

B.5 What is your present job called, which department is it in, and in which section of the department are you employed? (e.g. "Operative, Blast Furnace, Furnace Bottom")

Title of Job	Department	Section

B.6 What is your present main area of work? Please ring the appropriate number.

(a) Production Work

- Melting 1
- Rolling 2
- Blast Furnace 3
- Coke Works 4

(b) Maintenance Work - Craftsmen

- Boilermaker 5
- Bricklaying 6
- Electrical Crafts 7
- Mechanical Crafts 8
- Welding 9

(c) Maintenance Work Non Craft

Burner	10
Machinist	11
Operator	12
Slinger	13

(d) Ancillary or Service Work

Crane driving	14
Power Station Electrician	15
Rail Transport	16
Road Transport	17

(e) Labouring

Production (for example Plate Mill, Oxygen Steel Plant)	18
Maintenance (for example Foundry, Test Shop)	19
Ancillary or Service Work (for example Labour Gang Water Department)	20

(Question 7 - 11 apply only to workers whose job is part of a seniority line and excludes maintenance workers and labourers).

B.7 If your present job is part of a line of seniority, have you ever had promotion within the line?

Yes	1
No	2

B.8 Whereabouts in the seniority line is your present job located?

Top of the line	1
Near the top	2
About the middle	3
Near the bottom	4
Bottom of the line	5

B.9 Have you ever in your period of employment at Ironhill worked in another seniority line?

No	1
One other	2
Two other	3
More than two	4

B.10 If you have transferred between seniority lines was this because of: (ring more than one number if necessary).

Technical change affecting or removing your old job	1
Lack of security through short time working in your old job	2
Dissatisfaction with pay in old job	3
Better working conditions (i.e. less noise, heat, dirt) in new job.	4
Personal reasons (i.e. dislike of foreman etc. in old job)	5
Health reasons	6

Age (i.e. no longer able to manage a job because of age	7
Domestic reasons	8

B.11 If you transferred between seniority lines did you lose pay as a result?

Yes	1
No	2

B.12 It has been said that the lines of seniority in some sections of the Industry offer the worker guaranteed forms of promotion through experience and responsibility. Do you agree?

Yes	1
No	2

C. TRADE UNION MEMBERSHIP

C.1 Which union do you belong to?

- ISTC (or BISA KTA) 1
- Blastfurnacemen 2
- Transport and General Workers 3
- AEF 4
- EEFU/PTU (Electricians and Plumbers) 5
- Boilermakers' Society 6
- Building Trade Workers 7
- General and Municipal Workers 8

C.2 Have you ever held union office?

- No 1
- In the past, but not at present 2
- At present 3

C.3 If you have held or now hold any union office please tick as appropriate:

(Ring more than one number if necessary)

- Branch official (e.g. chairman, secretary, treasurer)
- Branch committee member
- Departmental representative (e.g. shop steward, delegate)
- Any other position (e.g. district committee N.E.C.)

(If you ticked the last alternative, please specify which position it was).

.....
.....

D. ATTITUDES TOWARDS WORK

D.1 We would like you to consider the following statements made about work in the steel industry, and give us your opinion of each statement by ringing the appropriate answer.

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>No fixed</u> <u>opinion</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
Steel work is interesting because there are:					
(a) opportunities to work without close supervision:	1	2	3	4	5
(b) opportunities to work as a member of a team;	1	2	3	4	5
(c) few boring routines;	1	2	3	4	5
(d) opportunities for promotion (i.e. seniority) as you gain experience;	1	2	3	4	5
(e) opportunities for holding responsibility and taking important decisions;	1	2	3	4	5
(f) opportunities to work on your own initiative where your skills can be used adequately	1	2	3	4	5

D.2 We would now like you to think about the following statements and decide which most nearly fit your own reasons for wanting to work in the steel industry. Ring as many answers as appropriate.

The pay's not bad in steel	1
I disliked my previous job	2
There are good opportunities to develop skills and get on	3
There was insecurity in my previous job either through redundancy or short time	4
My father encouraged me to follow him to work in steel	5
Steel work offers reasonably secure employment	6
There is nothing else to do in the area	7

D.3 Below are a number of statements concerning changes in the industry. Please ring the appropriate answer for each statement.

	<u>Strongly Agree</u>	<u>Agree</u>	<u>No fixed Opinion</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
(a) Nationalisation is likely to increase the industry's profitability in the long run	1	2	3	4	5
(b) Nationalisation means that pay will increase faster than before.	1	2	3	4	5
(c) Since nationalisation, the chances of closing are very much less	1	2	3	4	5
(d) Technical change (new machines; new processes) will eliminate some of the existing jobs at this plant	1	2	3	4	5
(e) This plant is overmanned	1	2	3	4	5
(f) Technical change in this plant is inevitable but must be accepted—even with redundancies - if conditions of employment are to be improved.	1	2	3	4	5
(g) Because of this change, I will probably have to change jobs with the industry during my working life.	1	2	3	4	5
(h) Despite technical change prospects are better than before nationalisation for those that remain in the industry	1	2	3	4	5

D.4 The following statements have been made about group work. We would like you to give us your opinion about them, even though you personally may not be a member of a group.

	<u>Strongly Agree</u>	<u>Agree</u>	<u>No fixed Opinion</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
(a) Working in a group is a good thing because it enables the worker to make friends easily with other workers	1	2	3	4	5

	<u>Strongly Agree</u>	<u>Agree</u>	<u>No fixed opinion</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
(b) Work groups can solve most problems themselves without continually referring to management for solution.	1	2	3	4	5
(c) All members of the group must pull their weight if the group's work is to be done efficiently.	1	2	3	4	5
(d) One bad thing about group work is that poor workers are carried by the rest.	1	2	3	4	5
(e) Group work is good because it permits a man to develop his skills with experience.	1	2	3	4	5
(f) Group work is a handicap to the more able worker whose progress is held back because a more experienced worker is in a position above him.	1	2	3	4	5

D.5 Below are a series of statements about work. Please indicate whether you think that on the whole, they are true or false by ringing the appropriate number in each case.

	<u>True</u>	<u>False</u>
(a) In steelwork, a steelworker can use his skills and get on in ways which would be impossible in factory work.	1	2
(b) Steelwork has little to offer apart from the money	1	2
(c) Steelworkers, once trained, are allowed to get on with their jobs without constantly being told what to do.	1	2
(d) In steel, jobs usually contain some variety and so avoid routine.	1	2

E. ATTITUDES TOWARDS OCCUPATION

E.1 You have indicated in question B.6 what your present area of work is. How long have you been employed in this area? Please ring the appropriate number.

- | | |
|----------------------|---|
| Under 1 year | 1 |
| 1 year but under 2 | 2 |
| 2 years but under 5 | 3 |
| 5 years but under 10 | 4 |
| 10 years or more | 5 |

E.2 Below are a number of statements dealing with experience, training, and specialisation in occupational areas. We would like you to ring the number which best fits your answer.

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>No fixed</u> <u>opinion</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
(a) It is necessary to gain wide experience in a particular occupation before reaching the top post in that occupation	1	2	3	4	5
(b) Because of the changing nature of the industry, new entrants in future must be trained in a much wider range of skills than at present (e.g. craftsmen not melters, rollers etc.)	1	2	3	4	5
(c) "There is no such person as a steelworker; only blastfurnacemen, melters, rollers, welders, fitters etc. etc."	1	2	3	4	5
(d) One of the obstacles to a united effort by all workers in the industry is the existence of separate occupational groups, each pursuing its own interests.	1	2	3	4	5

E.3 Some people say some occupations have more prestige (i.e. are rated more highly by steelworkers generally) than others. Irrespective of the occupational group to which you belong, please rank the following occupations in order of prestige, thinking only of the most skilled men in each occupation.

Please number the occupations in order, with 1 to the most and 10 to the least.

Blastfurnacemen and Cokeworkers	.....
Boilermakers, Burners and Welders	.....
Bricklayers	.....
Clerical Workers	.....
Crane Drivers	.....
Electricians	.....
Engineers (e.g. Turners, Fitters etc.)	.....
Steel Melters	.....
Steel Rollers	.....
Transport Workers	.....

E.4 A little earlier (in question D.1) you gave us your opinion on the opportunities for holding responsibility and taking decisions that exist for manual workers in steel. We would now like you to consider how the importance of manual workers' decisions compares with those taken by other classes of workers in the industry.

Which group takes the most important decisions for the industry?

Please rank from 1 to 5, with 1 to the most important.

Senior and experienced manual workers	.....
Clerical Staff	.....
Assistant plant managers	.....
Foremen	.....
Specialist staff (e.g. refractory and designers engineers).	.....

E.5 We would now like you to give us your opinion about how much say or influence your own occupational group has with management. Ring the number which most closely reflects your point of view, for each of the items mentioned below.

	A Great deal	Quite a bit	Not Much	Very Little	None at all
(a) The pace at which members of the group have to work	1	2	3	4	5
(b) Safety matters	1	2	3	4	5
(c) reducing departmental costs by suggesting economies in operations	1	2	3	4	5
(d) general financial policy matters (like the allocating of money to new projects or withdrawing it from doubtful ones)	1	2	3	4	5
(e) disciplining of employees (including dismissals)	1	2	3	4	5
(f) pay rates and bonuses	1	2	3	4	5
(g) the amount of overtime available	1	2	3	4	5
(h) fixing work standards by such things as job evaluation and method study	1	2	3	4	5

	A Great deal	Quite a bit	Not Much	Very Little	None at all
(i) Controlling the recruitment of new employees	1	2	3	4	5
(j) the handling of redundancy problems	1	2	3	4	5
(k) transfer of men between departments when required as the result of technical change	1	2	3	4	5
(l) the selection of men to positions within the seniority line	1	2	3	4	5
(m) purchasing new machines and equipment for your department	1	2	3	4	5

E.6 Thinking about your own occupational group's negotiations with management, how much influence would you ideally like it to have over the following aspects of work. Ring the number which most closely reflects your point of view for each of the items mentioned.

	A Great deal	Quite a bit	Not Much	Very Little	None at all
(a) the pace at which members of the group have to work	1	2	3	4	5
(b) safety matters	1	2	3	4	5
(c) reducing departmental costs by suggesting economics in operations	1	2	3	4	5
(d) purchasing new machinery and equipment for your department	1	2	3	4	5
(e) general financial policy matters (like the allocating of money to new projects or withdrawing it from doubtful ones)	1	2	3	4	5
(f) disciplining of employees (including dismissals)	1	2	3	4	5
(g) pay rates and bonuses	1	2	3	4	5
(h) the amount of overtime available	1	2	3	4	5
(i) fixing work standards by such things as job evaluation and method study	1	2	3	4	5

	A Great deal	Quite a bit.	Not Much	Very Little	None at all
(j) Controlling the recruitment of employees	1	2	3	4	5
(k) the handling of redundancy problems	1	2	3	4	5
(l) transfer of men between departments when required as a result of technical change	1	2	3	4	5
(m) the selection of men to positions within the seniority line	1	2	3	4	5

E.7 You may feel that other groups have different amounts of influence from your own when it comes to dealing with management about the issues already mentioned. We would like you to tell us how much say or influence you think other groups have got (ignoring the group you are in).

	More influence than your own group	About the same	Less influence
Blastfurnacemen	1	2	3
Boilermakers, Burner & Welders	1	2	3
Bricklayers	1	2	3
Clerical Workers	1	2	3
Cranedriviers	1	2	3
Cokeworkers	1	2	3
Electricians	1	2	3
Engineers (Fitters, turners etc.)	1	2	3
Steel-melters	1	2	3
Steel-rollers	1	2	3
Transport workers	1	2	3

E.8 In general, how much say or influence do you feel each of the following groups had on what goes on in Ironhill at the present time? Please ring the appropriate number in each case.

	A: Great Deal	Quite a bit	Not Much	Very Little	None at all
(a) B.S.C. management (London)	1	2	3	4	5
(b) Divisional management (General Steels)	1	2	3	4	5
(c) Ironhill management	1	2	3	4	5
(d) Foremen	1	2	3	4	5
(e) Full time trade union officials	1	2	3	4	5
(f) Delégates and shop stewards	1	2	3	4	5
(g) Rank and file employees	1	2	3	4	5
(h) Clerical workers	1	2	3	4	5

E.8 In general, how much say or influence do you feel each of the groups ideally ought to have over what goes on at Ironhill? Please ring the appropriate number in each case.

	A. Good deal	Quite a bit	Not Much	None Little	None at all
(a) B.S.C. Management (London)	1	2	3	4	5
(b) Divisional management	1	2	3	4	5
(c) Ironhill management	1	2	3	4	5
(d) Foreman	1	2	3	4	5
(e) Full time trade union officials	1	2	3	4	5
(f) Delegates and shop stewards	1	2	3	4	5
(g) Rank and file employees	1	2	3	4	5
(h) Clerical workers	1	2	3	4	5

F. ATTITUDES TOWARDS MANAGEMENT AND THE TRADE UNION

F.1 We would now like you to give us your opinion of the following statements about trade unions and management. Please ring the number that corresponds nearest to your answer for each item

	Strongly agree	Agree	No fixed opinion	Disagree	Strongly Disagree
(a) Trade Unions and Management co-operate together in this plant because they see each other's point of view	1	2	3	4	5
(b) Teamwork in industry is impossible because employers and men are really on opposite sides	1	2	3	4	5
(c) Ironhill management is quite good because it is prepared to listen to complaints and consider suggestions	1	2	3	4	5
(d) Ironhill management is less effective than it might be because it must be constantly looking over its shoulder at the British Steel Corporation	1	2	3	4	5
(e) The unions in this plant tend to be controlled by cliques so it's different for the ordinary member to make his views known	1	2	3	4	5
(F) A strong point about the unions is that they are very democratic and consider all members' point of view.	1	2	3	4	5
(g) Industrial relations in the steel industry are good because problems concerning pay and conditions can be settled quickly at the local level	1	2	3	4	5

F.2 What do you think about the steel industry's industrial relations record (taking into account factors other than pay)? Please ring the appropriate number.

- Good 1
- About Average 2
- Bad 3

F.3 We should like you now to comment on some of the proposals for the industry's future as specified by B.S.C., and which have been - or may be - the subject of agreements between management and the trade unions. Please ring the appropriate number.

	Strongly Agree	Agree	No fixed opinion	Disagree	Strongly Disagree
(a) The most important common objective of management and the trade unions at present is to achieve and maintain the highest labour productivity	1	2	3	4	5
(b) To achieve a labour force which can be developed flexibly	1	2	3	4	5
(c) High productivity requires full co-operation by the unions on work study and job evaluation	1	2	3	4	5
(d) High productivity requires much more local productivity agreements	1	2	3	4	5
(e) Wage anomalies (e.g. unequal overtime premiums) must be removed by local negotiation	1	2	3	4	5
(f) Removing fluctuation in earnings in favour of a more stable wage	1	2	3	4	5

F.4 In exchange for co-operation by the unions in increasing productivity and reducing costs the following items represent possible improvements which have been - or might be - made. Please rank in order of importance, giving one to the most important improvement you feel should be made, and nine to the least.

- (a) Increase in holiday pay
- (b) Improvement in guaranteed week from 4 shifts to 5
- (c) Consolidating cost of living in basic pay

- (d) Introduction of annual salaries for manual workers to improve 'social status'
- (e) Establishment of industry wide pension scheme for manual workers
- (f) Establishment of uniform time conditions throughout the steel industry
- (g) Personal earnings protection in cases of required changes in job
- (h) Better sickness benefits
- (i) Better redundancy pay when plants close

F.5 We would like you now to give us your opinion on the following statements concerning participation. Please ring the appropriate answers.

	Strongly Agree	Agree	No fixed opinion	Disagree	Strongly Disagree
(a) The steel industry's work director scheme successfully puts the voice of the worker on the Board of management	1	2	3	4	5
(b) Too many decisions in this plant are taken without seeking employees' points of view	1	2	3	4	5
(c) There are increasing opportunities today for workers to participate with management in the setting of production standards (i.e. productivity bargaining)	1	2	3	4	5
(d) the worker's job involves taking orders: it's not his job to make the rules	1	2	3	4	5
(e) Workers should have more say in how their employment can be safeguarded (e.g. disciplining, redundancy)	1	2	3	4	5
(f) If workers feel bad management is responsible for poor performance they should be able to do something about it	1	2	3	4	5

	Strongly Agree	Agree	No fixed opinion	Disagree	Strongly Disagree
(g) Employees need more education about work study in order to help them negotiate effectively	1	2	3	4	5

G. ATTITUDES TOWARDS SOCIAL LIFE

G.1 How do you rate the chances of manual workers generally for eventual promotion to foreman and possibly higher? Please ring the appropriate number.

- | | |
|--------------|---|
| Good | 1 |
| Reasonable | 2 |
| Not much | 3 |
| Non existent | 4 |

G.2 How do you rate your own personal chances of promotion to foreman and possibly higher? Please ring the appropriate number.

- | | |
|--------------|---|
| Good | 1 |
| Reasonable | 2 |
| Not much | 3 |
| Non existent | 4 |

G.3 If there were no obstacles in your path, would you ideally like to be promoted into management?

- | | |
|-----|---|
| Yes | 1 |
| No | 2 |

G.4 On the whole, do you spend a good deal of your social time outside work (i.e. clubs, pubs etc.) with colleagues with whom you work closely?

- | | |
|-----|---|
| Yes | 1 |
| No | 2 |

G.5 Which of the following statements about the industry most closely represent your point of view. Please ring as appropriate.

- | | |
|--|---|
| (a) I work in steel because there's nothing else to do in the area | 1 |
| (b) I work in steel because the pay's not bad for the kind of work I do | 2 |
| (c) Even though there are grumbles about aspects of the job I find steelwork interesting and challenging | 3 |

G.6 Which of the following statements about Ironhill as a town most closely represents your point of view? Please ring as appropriate.

- | | |
|--|---|
| (a) I am happy living in the Ironhill area, because I have family and friendship ties here. | 1 |
| (b) I intend leaving Ironhill if I get the chance - there are better opportunities elsewhere | 2 |

G.7 Which of these three statements about society do you most agree with?

- (a) We live in a fair society 1
- (b) There is injustice in our society, but this can be corrected by making reforms 2
- (c) No matter what we do, the kind of society we live in will always be unjust. The only solution is a new kind of society. 3

G.8 Which of these two statements about the steel industry do you most agree with?

- (a) The steel industry is like a ladder. You can climb to any position by your own efforts 1
- (b) Whether in private or nationalised hands, steel-workers will always be relatively worse off than those who control industry and will have to fight for every improvement in their condition. 2

Thank you for your co-operation.

APPENDIX B

NEWCASTLE UPON TYNE POLYTECHNIC

Department of Behavioural Studies

Office use only

1. Where do you live? Please tick as appropriate. cc 5
- Within 2 miles at Ironhill 1
 - Within 5 miles of Ironhill 2
 - Over 5 miles from Ironhill 3
2. How long have you lived there? Please tick as appropriate. cc 6
- 0 - 4 years 1
 - 5 - 19 years 2
 - 20 years and over 3
3. Please select from the following groups of friends the three groups whom you spend most time with. cc 7
- Please tick as appropriate.
- (a) Immediate family i.e. If you are married, wife and children; if you are not married parents brothers and sisters. 1
 - (b) Other family contacts i.e. Cousins, aunts, uncles, grandparents etc. 2
 - (c) Friends from work who are also clerks 3
 - (d) Friends from work who are manual workers 4
 - (e) Friends from work who are members of management. 5
 - (f) Relatives who work at Ironhill and are manual workers. 6
 - (g) Relatives who work at Ironhill and are members of management. 7
 - (h) Friends who are not employed at Ironhill but who live in the same area as yourself 8

Please specify other groups of friends

.....

4. The table below provides an opportunity to give your opinion on the ways in which clerks (people like yourself), managers and manual workers might prefer to spend their leisure time. Where you think an activity is appropriate to only one group e.g. managers, tick only the box for Managers. Where an activity is appropriate for two groups e.g. Clerks and Managers tick the two boxes marked Clerks and Managers. Where an activity seems appropriate to all three groups, tick all three boxes. (Table on page 2).

Office use only

	Managers	Clerks	Manual Workers	cc8 M	cc9 C	cc10 W
Playing Golf				1	1	1
Belonging to a Working Men's Club				2	2	2
Dinghy Sailing				3	3	3
Leek Growing				4	4	4
Holidays Abroad				5	5	5
Dining Out				6	6	6
Bingo				7	7	7
Further Education				8	8	8
Hobbies (including do-it-yourself activities)				9	9	9

5. What is/was your father's present/last occupation?

.....

cc 11
M
1
N/M
2

6. Has he ever worked or does he still work in either the steel or mining industries?
Please tick as appropriate.

Steel Industry Yes

 No

Mining Industry Yes

 No

cc 12
BY
1
SY
2
MY
3
BN
4

7. When did your full-time schooling finish?
Please tick as appropriate.

Earlier than 14 years

At 14 years

At 15 years

Later than 15 years

cc 13

1
2
3
4

Office use only

8. Did you obtain any qualifications at school?
Please tick as appropriate.

cc 14

Yes

1

No

2

If yes please indicate by ticking as appropriate what qualifications are. Tick appropriate column in each case.

cc 15

City and Guilds Certificate

1

< G.C.E. 'U' level, O.N.C. or School Certificate

2

G.C.E. 'A' level or Higher School Certificate

3

C.S.E.

4

Please state any others below:-

.....

.....

.....

9. Have you obtained any further qualifications since leaving school?
Please tick as appropriate.

cc 16

Yes

1

No.

2

If YES does this qualification improve your career prospects?

cc 17

Yes

1

No

2

10. Are you continuing your education in any way at the present time?
Please tick as appropriate.

cc 18

Yes

1

No

2

If YES is this education directly related to your job or to outside interests?
Please tick as appropriate.

cc 19

Directly related to job

1

Outside interests

2

Both

3

11. Which of the following statements about Ironhill as a town most clearly represents your point of view? Please tick one of the following statements if you live in Ironhill.

cc 20

(a) I am happy living in Ironhill because I have family and friendship ties here.

1

(b) I intend leaving Ironhill if I get the chance - there are better opportunities elsewhere.

2

(c) I don't know - I have never really thought about it.

3

12. Please list below any previous jobs you held before coming to Ironhill.

cc 21

.....

M

.....

1

.....

N/M

.....

2

.....

13. We would now like you to think about your reasons for deciding to join the staff at Ironhill. If you came to the staff at Ironhill from previous employment either inside or outside the company please complete both tables below. If you have worked only on the staff at Ironhill please complete Table 2 only. Please tick the appropriate statements - more than one if necessary.

Table I

My reason(s) for leaving my previous job was/were

cc 22

Dissatisfaction with pay 1

Lack of security 2

Poor working conditions (other than pay e.g. general facilities) 3

Poor opportunities for promotion 4

Poor opportunities for using skills 5

Too closely supervised (e.g. unable to use initiative or take decisions) 6

Bad management 7

Work load too heavy 8

Redundancy 9

Please specify any other reasons

.....

Office use only

Table II

My reason(s) for selecting clerical work at Ironhill was/were

The pay seemed attractive	.....	1
It offered secure employment	.....	2
Promotion opportunities seemed good	.....	3
Domestic reasons (e.g. wished to remain in this area)	.....	4
No other opportunities	.....	5
Better opportunities for using skill and initiative	.....	6
Encouraged by father, family and friends.	.....	7
The reputation of Ironhill as an employer was good	.....	8
Working conditions seemed attractive	.....	9

cc 23

14. We are interested in obtaining your opinions about your own job at Ironhill. Please indicate against each statement below whether the standard of the following characteristics is good or bad. Please tick as appropriate.

cc 24/25

	Good	No fixed opinion	Bad	G	B
(1) Opportunities for setting the pace of your own work (not too closely supervised)				1	1
(2) Opportunities for influencing your supervisors in making decisions				2	2
(3) Opportunities for varied and interesting work				3	3
(4) Adequacy of pay for your skill and effort				4	4
(5) Opportunities for using your own initiative in problem solving				5	5
(6) Opportunities for learning new skills				6	6
(7) Offers secure employment				7	7
(8) Adequate recognition from supervisor for good job performance				8	8
(9) Offers prospects for promotion for you.				9	9

Office use only

15. We are now interested in your opinions about clerical work as a whole at Ironhill. Please indicate against each statement whether the standard of the following items is good or bad at Ironhill. Please tick as appropriate.

cc26/27

	Good	No fixed opinion	Bad	G	B
(1) Pay				1	1
(2) Hours of work				2	2
(3) Holidays				3	3
(4) Office Accommodation				4	4
(5) Technical quality of supervisor (i.e. skill and knowledge)				5	5
(6) Technical quality of Management (i.e. skill and knowledge)				6	6
(7) Social quality of management (i.e. social policies which take account of technical decisions on employees)				7	7
(8) Promotion prospects				8	8
(9) Opportunities for making friends				9	9

16. If you could choose three characteristics to go towards creating an ideal job situation which 3 of the following would you select. Please tick as appropriate.

cc 28

(1) Opportunity for setting the pace of your own work i.e. without close supervision.	.....	1
(2) Varied work which avoids a boring routine	.....	2
(3) Opportunity to develop skills and learn new skills of the job.	.....	3
(4) Demanding work which requires effort and involvement	.....	4
(5) Good promotion prospects	.....	5
(6) Security	.....	6

Office use only

- (7) A level of pay adequate for your skill and effort 7
- (8) Getting recognition for satisfactory work for superiors and colleagues 8
- (9) Work which is not too demanding and allows plenty of time for out of work activities 9

17. If you could choose ideal work conditions which two of the following would you select as most important to you. Please tick as appropriate. cc 29

- (1) Working under supervisors who give reasonable and clear directives 1
- (2) Opportunity to influence supervisors in making decisions 2
- (3) A congenial working atmosphere which enables you to make friends 3
- (4) Working for a technically competent management i.e. making skillful and informed decisions 4
- (5) Working for a management who pursues social policies that show concern for the effects of its technical proposals on employees 5
- (6) Working in a company which offers good social facilities i.e. canteens, social clubs, good office accommodation. 6

18. Below is a series of statements about work. Please indicate whether you think that on the whole they are true or false by ticking the appropriate box in each case. cc 30/31

- | | True | False | |
|--|--------------------------|--------------------------|---|
| (1) People can put up with anything providing the money is right | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
| (2) Nowadays people might just as well go for good money and not bother about education and office jobs. | <input type="checkbox"/> | <input type="checkbox"/> | 2 |
| (3) Clerical work is more attractive than manual work because it offers more secure employment. | <input type="checkbox"/> | <input type="checkbox"/> | 3 |
| (4) Nowadays clerical work no longer provides opportunities for a close relationship with management | <input type="checkbox"/> | <input type="checkbox"/> | 4 |
| (5) The clerk is in a better position than manual workers when it comes to promotion. | <input type="checkbox"/> | <input type="checkbox"/> | 5 |

Office use only

(6) The skills of clerical work are sufficient to give it higher status than manual work

True	False

6

19. Below is a series of statements about clerical work in the steel Industry. Please indicate whether you think that, on the whole, they are true or false by ticking the appropriate box in each case.

cc32/33

(1) Narrowing income differentials between clerks and manual workers is an important cause of unrest amongst the staff.

(2) Neither management nor manual workers value clerical work very highly because they see it as less important than production work

(3) Clerks are more aware than manual workers of management's point of view because clerical work can lead to a managerial position

(4) Nowadays there are no special skills required to become a clerk

(5) The manual worker deserves more money than the clerk because of the type of work he does.

(6) Further education is still a value means of getting on it clerical work

(7) One of the obstacles to a united effort by clerks in this plant is their dispersion over a wide area

(8) Wherever they are situated in this plant clerks have similar interests and share a common point of view

True	False

T F

1 1

2 2

3 3

4 4

5 5

6 6

7 7

8 8

Office use only

20; Now we would like you to give your opinion about the following statements:-
Please tick against each item which answer you think is most appropriate.

cc34/35

(a) Since nationalisation the chances of Ironhill closing are very much less.

(b) The future of Ironhill depends very much on how well management and employees can co-operate together to solve common problems

(c) Technical change-new machines, new processes - will eliminate some of the existing jobs at the plant.

(d) This plant is over-manned

(e) Technical change in this plant is inevitable but must be accepted, even with redundancies, if conditions of employment are to be improved

Agree	No fixed Opinion	Disagree

A D

1 1

2 2

3 3

4 4

5 5

21. Some people say that some occupations have more prestige than others. Please rank the following occupations in your industry in order of prestige giving 1 to the highest (i.e. with most prestige and 9 to the lowest. Please mark in the appropriate number.

cc 36

- Blast-furnacemen
- Managers
- Plumbers
- Clerks
- Steel rollers
- Steel melters
- Foremen
- Electricians
- Transport workers

1
2
3
4
5
6
7
8
9

P.C.

22. We would now like you to give us your opinion about how much say and influence your own occupational group has with management. Tick the column which most closely reflects your point of view, against each of the items mentioned below:-

cc37/40

Office use only
GD B VL N

	A Great deal	Quite a bit	Very Little	None at all	GD	B	VL	N
(a) reducing departmental costs by suggesting economics in operations.					1	1	1	1
(b) improving productivity by suggesting changes in working practices.					2	2	2	2
(c) purchasing new machinery and equipment for your department.					3	3	3	3
(d) general financial policy matters (like the allocating of money to new projects or withdrawing it from doubtful ones).					4	4	4	4
(e) disciplining of employees (including dismissals).					5	5	5	5
(f) pay rates and bonuses.					6	6	6	6
(g) assigning employees to particular jobs.					7	7	7	7
(h) fixing work standards by such things as job evaluation and method study					8	8	8	8
(i) the right to organise work as the group thinks fit.					9	9	9	9

23. Thinking about your own occupational group's negotiations with management, how much influence would you ideally like it to have over the following aspects of work.
Tick the column which most closely reflects your point of view on each of the items, mentioned below.

cc 41/44

	A great deal	Quite a bit	Very Little	None at all	GD	QB	VL	N
(a) Reducing departmental costs by suggesting economies in operations.					1	1	1	1

(1) Departmental costs

Office use only

(b) improving productivity by suggesting changes in working practices

(c) Purchasing new machinery and equipment for your department

(d) General financial policy matters (like the allocating of money to new projects or withdrawing it from doubtful ones)

(e) Disciplining of employees (including dismissals)

(f) Pay rates and bonuses

(g) Assigning employees to particular jobs

(h) fixing work standards by such things as job evaluation and method study

(i) The right to organise work as the group thinks fit

A great deal	Quite a bit	Very Little	None at all

GD	QB	VL	N
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

24. You may feel that other groups have different amounts of influence from your own when it comes to dealing with management about the issues already mentioned. We would like you to tell us how much say or influence you think other groups have got (ignoring the group you are in).

cc 45/48

Blastfurnacemen
Managers
Plumbers
Crane drivers
Steel rollers
Steel melters
Foremen

More influence than your own group	About the same	Less influence

MI	S	LI
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7

Office use only

Electricians

Transport Workers'

More influence than your own Group	About the same	Less influence

MI	S	LI
8	8	8
9	9	9

25. In general, how much say or influence do you feel each of the following groups has on what goes on in Ironhill at the present time?

cc 49/53

(a) B.S.C. management (London)

(b) Divisional management (General Steels)

(c) Ironhill management

(d) Foremen

(e) Full time trade union officials

(f) Delegates and shop stewards

(g) Rank and file manual employees

(h) Clerks

A Great deal	Quite a bit	Very Little	None at all

GD	QB	VL	N
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8

26. In general, how much say or influence do you feel each of the groups ideally ought to have over what goes on at Ironhill.

cc 54/58

(a) B.S.C. management (London)

(b) Divisional management

(c) Ironhill management

(d) Foremen

(e) Full time trade union offices

A Good deal	Quite a bit	Very Little	None at all

GD	QB	VL	N
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5

	A Good deal	Quite a bit	Very Little	None at all	Office use only			
					GD	QB	VL	N
(f) Delegates and shop stewards					6	6	6	6
(g) Rank and file manual employees					7	7	7	7
(h) Clerks					8	8	8	8

27. What are your opinions on the following Social issues?
Please tick the appropriate box.

cc 59

(a) "The Welfare State has been beneficial to our Society"

Strongly Agree

1

Agree

2

Undecided

3

Disagree

4

Strongly Disagree

5

(b) "The intervention of Government in many aspects of our lives has been an obstacle to individual initiative"

Strongly Agree

1

Agree

2

Undecided

3

Disagree

4

Strongly Disagree

5

(c) "Nationalisation of major industries is a bad thing for the country"

Strongly Agree

1

Agree

2

Undecided

3

Disagree

4

Strongly Disagree

5

28. How long have you been a member of BISA KTA?
Please tick as appropriate. c 60
- 0 - 5 years 1
 - 6 - 14 years 2
 - 15 - 24 years 3
 - 25 years and over 4
29. Have you ever held an office in your local branch, (i.e. Committee Member, Secretary, Representative).
Please tick as appropriate. c 61
- Yes 1
 - No 2
30. How often do you attend Branch Meetings?
Please tick as appropriate. c 62
- Always 1
 - Frequently 2
 - Infrequently 3
 - Never 4
31. What was/were your reason/s for joining BISA KTA?
Please tick as appropriate. c 63
- (a) Because my father was a member of a trade union. 1
 - (b) Because it seemed a good thing to belong to a union which represents the point of view of manual workers. 2
 - (c) Because although I did not want to join I was expected to join. 3
 - (d) Because I believed that clerical workers, like any other workers, should be represented by a trade union. 4
 - (e) Because I believe that it was the only way to get better wage. 5
32. Given the opportunity, which one of the following would you prefer?
Please tick as appropriate. c 64
- (a) To remain in my present type of union (i.e. one which recruits clerical, supervisory, and manual employees in the steel industry). 1

Office use only

- | | | |
|---|-------|------|
| (b) To belong to a union which recruited only clerical staff in the steel industry. | ..... | 2 |
| (c) To belong to a union which recruited only clerks, supervisors and middle management in the steel industry | ..... | 3 |
| (d) To belong to a union which recruited all ranks in white-collar work including managers, supervisors and clerical staff in several different industries. | ..... | 4 |
| 33. Ideally what would be the <u>three</u> most important characteristics of a trade union for clerical staff. Please tick the <u>three</u> characteristics you consider most important. | | c 65 |
| (a) Negotiating levels of pay | ..... | 1 |
| (b) Stressing collective bargaining with management. | ..... | 2 |
| (c) Maintaining pay and status differentials between manual and non-manual employees. | ..... | 3 |
| (d) Militant action (i.e. prepared to strike) | ..... | 4 |
| (e) Maintaining a 'closed shop' policy of recruitment. | ..... | 5 |
| (f) Operating a 'non-closed shop' policy of recruitment. | ..... | 6 |
| (g) Pursuing a policy of co-operation with management in the planning of change in the industry. | ..... | 7 |
| (h) Setting qualification standards for admission into the occupation or profession. | ..... | 8 |
| (i) Paying careful attention to its image with the general public. | ..... | 9 |
| 34. Do you think that membership of a predominantly manual workers' union (i.e. BISA KTA) provides adequate representation of the interests of clerical staff? Please tick <u>one</u> of the following which you consider to be most appropriate. | | c 66 |
| (a) Yes - the clerical branch of BISA KTA in this plant effectively represents the special interests and needs of clerks. | ..... | 1 |

Office use only

- (b) Yes - the interests of manual and non-manual workers are identical and both are adequately represented by BISA KTA 2
- (c) No - the clerks have suffered adversely compared with manual workers in obtaining better conditions of work. Completely separate representation would be preferable. 3

35. Some people say that strikes are on the increase these days and that this is evidence of increasing irresponsibility on the part of employees. Do you agree with this statement? Please tick as appropriate.

- Yes 4
- No 5

36. We would like you to give us your opinion of the following statements about trade unions and management. Please tick the answer which seems most appropriate for each item below.

cc 67/68

- (a) Trade Unions and Management co-operate together in this plant because they see each other's point of view.
- (b) In this plant, trade unions spend too much time getting on with management and not enough time promoting their members' interests
- (c) Ironhill management is quite good because it is prepared to listen to complaints and consider suggestions
- (d) Ironhill management is less effective than it might be because it must refer decisions to the British Steel Corporation
- (e) The Unions in this plant tend to be controlled by cliques so it's difficult for the ordinary member to make his views known

	Agree	Disagree
(a)		
(b)		
(c)		
(d)		
(e)		

A D

1 1

2 2

3 3

4 4

5 5

Office use only

Agree	Disagree

(f) Industrial relations in the steel industry are good because problems can be settled quickly at the local level.

6 6

(g) There is too much independence at plant level and not enough uniformity of pay and conditions - hence the need for national agreements

7 7

37. What do you think about the steel industry's industrial relations record (taking into account factors other than pay).

cc 69

Good 1

About Average 2

Bad 3

38. Some people suggest that the Steel Industry has a good industrial relations record. We would like you to arrange their reasons in order of importance (even if you do not agree that Industrial Relations are good). Please arrange the reasons in order of importance from 1 for the most important to 5 for the least.

c 70

Effective industry-wide machinery exists for negotiation and consultation. 1

Management is always available and ready to listen to complaints. 2

The Unions are responsible and efficient 3

There is effective machinery at plant level for the quick settlement of disputes. 4

Supervision is good. 5

39. We should like you now to comment on some of the proposals for the industry's future as specified by B.S.C., and which have been - or may be - the subject of agreements between management and the trade unions.

cc 71/72

Office use only

	Agree	Disagree	A	D
(a) The most important common objective of management and the trade unions at present is to achieve and maintain the highest labour productivity.			1	1
(b) To achieve labour force which can be deployed flexibly			2	2
(c) High productivity requires full co-operation by the unions on work study and job evaluation			3	3
(d) High productivity requires much more local productivity agreements			4	4
(e) Trade Unions should participate with management locally in setting target manning reductions			5	5
(f) Inconsistencies in overtime premiums and other wage anomalies must be removed by local negotiations			6	6

40. In exchange for cooperation by the unions in increasing productivity and reducing costs, the following items represent improvements which have been - or might be - made. Please tick the three most important items for Ironhill.

- (a) Increase in holidays 1
- (b) Reduction in hours of work 2
- (c) Better redundancy pay when plants close 3
- (d) Introduction of annual salaries for manual workers to improve their "social status". 4
- (e) Improvements in pay differentials between clerks and manual workers (i.e. clerks should receive more pay) 5
- (f) Establishment of industry-wide pension schemes for all employees 6
- (g) Establishment of uniform time and salary conditions for different categories of clerks in the steel industry 7
- (h) Better sickness benefits for manual workers 8

Are there any other improvements you would like to see brought about by negotiation? Please specify 9

.....

.....

41. We would like you now to give us your opinion about the following statements. Please tick the answer which seems most appropriate for each item mentioned below.

cc 74/75

	Agree	Disagree	A	D
(a) The steel industry's worker-director scheme successfully puts the voice of the worker on the Board of management			1	1
(b) Too many decisions in this plant are taken without seeking the employees' points of view			2	2
(c) It's management's job to manage; the trade unions must stick to getting higher wages			3	3
(d) A trade unionist must be able to talk about costs and profits more than in the past in order to make the best bargain possible for the clerical staff.			4	4
(e) It's not enough to be advised after a decision has been taken - there are many aspects of work where work-people ought to participate in the making of decisions.			5	5

42. What is your present gross annual salary? Please tick as appropriate.

c 76

Under £500	.....	1
£500 - £600	.....	2
£700 - £900	.....	3
£1,000 - £1,200	.....	4
£1,300 - £1,500	.....	5
Above £1,600	.....	6

43. In your opinion which of the following represent trends in clerical and manual worker's incomes in the steel industry? Please tick appropriate statement/s.

c 77

(a) Both are rising.	.....	1
(b) Both are rising but manual workers' incomes are increasing more rapidly	.....	2
(c) Both are rising but clerks' incomes are increasing more rapidly.	.....	3
(d) Both are stable.	.....	4

Office use only

44. In your opinion which of the following trends of incomes for clerks and manual workers in the steel industry would represent an ideal state of affairs.

c 78

- (a) Both should rise. 1
- (b) Both should rise but manual workers' incomes should increase more rapidly because of the importance of production work to the industry. 2
- (c) Both should rise but clerks' incomes should increase more rapidly because they are not paid adequately for the work they do. 3
- (d) Manual workers' incomes should remain stable for a while because clerks' incomes have lagged behind. 4

45. What is your age?
Please tick as appropriate.

c 79

- 15 - 20 years 1
- 21 - 30 years 2
- 31 - 40 years 3
- 41 - 50 years 4
- 51 years and over 5

Thank you for your help in completing this questionnaire.