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**WORKERS, UNIONS AND THE 'POLITICS OF MODERNISATION':**  
**LABOUR PROCESS CHANGE IN THE BRAZILIAN WHITE GOODS**  
**INDUSTRY**

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**A thesis submitted in fulfilment of the requirements of the degree of Ph.D**

**2000**

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## ABSTRACT

The thesis addresses the implications of new management and production techniques for workers and unions within a developing country. The specific focus is the white goods industry in Brazil during a period of political and economic transition from 1985 to 1994. In addition to analysing industrial modernisation by four firms, the study uses worker interviews and a review of the unions' identities to provide a comprehensive image of the 'politics of modernisation' in Brazil.

The thesis draws on critical work which suggests that modernisation may not have the optimistic effects on labour processes and industrial behaviour that some authors have suggested. Factory regimes are also felt to be strongly related to their particular context. However, the thesis attempts to deepen the degree to which foreign capital and traditional norms of industrial behaviour are considered. Forms of power and resistance are also made more explicit.

The study's analysis of the modernisation process suggests that managerial intent must be questioned. Even the most comprehensive examples of modernisation suggest that labour control still drives change. Yet a somewhat 'softer' implicit bargain has replaced the wage-effort contract in such firms.

Interview material confirms this mixed picture. Modernisation and related policies have allowed the most advanced firms to foster a more company focussed labour force - one which has embraced new tasks and responsibilities. However, other indicators such as wages and attitudinal factors caution that this situation is neither benign nor immutable.

Despite a less normative industrial relations framework, the harsh political and representational situation facing Brazilian unions has simply been further complicated by 'modernisation'. Yet, while workers have become more positive about their employers, to call this change 'employer allegiance' would be an exaggeration. Conflict, albeit of a different nature, still underpins industrial relationships.

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'...when you are a Bear of Very Little Brain, and you think of Things, you find sometimes that a Thing which seemed very Thingish inside you is quite different when it gets out into the open and has other people looking at it.'<sup>1</sup>

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<sup>1</sup> A. A. Milne, The Pooh Book of Quotations, compiled by B. Sibley, (New York, 1991) p36.

## LIST OF ABBREVIATIONS

**ABC (region)** = three municipal areas which make up this very important industrial region; Santo André, São Bernardo and São Caetano.

**ABINEE** = Associação Brasileiro da Indústria Eletrica e Eletrônica

**BNDES** = Banco Nacional de Desenvolvimento Econômico e Social

**CAD/CAM** = Computer Aided Design / Computer Aided Manufacture

**CEBRAP** = Centro Brasileiro de Análise e Planejamento

**CGT** = Confederação Geral dos Trabalhadores

**CIPA** = Comissão Interna de Prevenção de Acidentes

**CONCLAT** = Coordenação Nacional da Classe Trabalhadora

**CUT** = Central Única dos Trabalhadores

**DESEP** = Departamento de Estudos Sócio-Econômicos e Políticos da CUT

**DIEESE** = Departamento Intersindical de Estatística e Estudos Sócio-Econômicos

**FGTS** = Fundo de Garantia do Tempo de Serviço

**FGV** = Fundação Getúlio Vargas

**FIESP** = Federação das Indústrias do Estado de São Paulo

**FMS** = Flexible Manufacturing System

**HRM** = Human Resource Management

**IBGE** = Instituto Brasileiro de Geografia e Estatística

**IBMEC** = Instituto Brasileiro de Mercado de Capitais

**IDORT** = Instituto de Organização Racional do Trabalho

**ILM** = Internal Labour Market

**ILO** = International Labour Organisation

**IMAM** = Instituto de Movimentação e Armazenagem de Materiais

**IMF** = International Monetary Fund

**IPEA** = Instituto de Pesquisa Econômica Aplicada

**IS** = Imposto Sindical

**ISI** = Import Substituting Industrialisation

**ISO (9000)** = an international standard of quality

**JIT** = Just-in-Time

**NC/CNC** = Numeric Controls / Computer Numeric Controls

**PBQP** = Brazilian Programme for Quality and Productivity

**PLCs** = Programmable Logic Controls

**PT** = Partido dos Trabalhadores

**PTB** = Partido Trabalhista Brasileiro

**QC** = Quality Control Circle

**SEADE** = Sistema Estadual de Análise de Dados (Fundação)

**SENAI** = Serviço Nacional de Aprendizagem Industrial

**SESI** = Serviço Social da Indústria

**SOBRACON** = Sociedade Brasileira de Comando Numérico

**SPC** = Statistical Process Control

**TNC** = Transnational Corporation

**TQM** = Total Quality Management

**USI** = union central for service industry workers

## GLOSSARY OF BRAZILIAN TERMS

*AUTÊNTICOS* = a name used by 'new union' groups claiming to be the real, independent representatives of workers.

*AUTOCONTROLE* = self-control/responsibility.

*CÂMARA SETORIAL* = a sectoral programme of development incentives and labour trade-offs.

*CENTRAL* (of unions) = not a union confederation but a co-ordinating body established by various (politically aligned) groups. Many often exist.

*CESTA BÁSICA* = a subsistence food parcel option open for unions to demand and employers to contribute to or provide.

*COMISSÃO DE FÁBRICA* = a factory committee.

*CONSOLIDAÇÃO DAS LEIS DO TRABALHO* (CLT) = the codified labour laws or Labour Code.

*CONTRATOS COLETIVOS* = collective (labour) contracts.

*ELETRO - DOMÉSTICOS/ELETRÔNICA* = domestic electrical (goods) /electrical electronic (goods).

*ESTADO NOVO* = new state; refers to 1937-43 period when the state claimed to become the benevolent overseer of social (and labour benefit) provision. In reality, it was a fairly authoritarian political era.

*FORÇA SINDICAL* = one of the current union centrals. It emerged in the early 1990s.

*IMPOSTO SINDICAL* (IS) = the automatic deduction (one days pay/year) taken from workers to pay for the official union system.

*INTERVENTOR* (of a union) = a (temporary) intervenor/administrator of a union appointed by Government/labour court when there has been an infringement of a union's statutory responsibilities or a dispute over voting procedures/results.

*MECÂNICOS* (union) = mechanical workers union

*MUNICÍPIO* = local government area

*NOVO SINDICALISMO* = 'new unionism', union groups claiming to have broken from the mould of non-representative unions.

*OPERAÇÃO TARATUGA/ABELLA* = ‘turtle’ or go-slow campaign / ‘bee-sting’ or fast, unexpected campaign.

*OPOSIÇÃO SINDICAL* = ‘new unionist’ groups who are in opposition.

*PELEGO* = literally, a blanket between a horse and rider; term used to refer to unions/unionists who are simply bureaucratic administrators.

*PISO* = minimum salary rate/base for an occupation in a region.

*PLANO DE METAS* = plan of goals; refers to development plan of the Kubitschek (1956-61) presidency.

*PLANO REAL* = monetary stabilisation plan introduced by the Brazilian Government in 1994.

*PLÁSTICOS* (union) = plastic workers union

*SALÁRIO MÍNIMO* = minimum salary; a statutory concept since 1940. Salaries and subsistence measures often expressed as multiples of this.

*SINDICATO* = a union/local union

*SINDITHERME* (union) = a union of refrigeration, air conditioning, refrigeration inputs, and dental implement making workers (in Joinville).

*SÓCIO* (of a union) = a socio of a union is a person who pays an extra contribution (in addition to the compulsory Imposto Sindical) to the union for extra services/union involvement.

*TERCEIRIZAÇÃO* = outsourcing

*UNICIDADE SINDICAL* = refers to the monopoly of representation that a recognised union has over all workers in that branch of industry in a specified region.

*UNIDADE SINDICAL* = refers to a view that unions must maintain a unified (official) structure.

*VACA BRAVA* = ‘mad cow’; phrase to symbolise defiance.

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## THESIS OUTLINE

New models of industrial modernisation are said to have profound effects on the nature of work and worker subjectivity. Much more consensual relations are claimed to have replaced control and conflict - as the basis for workplace relations - within this new paradigm. These changes at the workplace also signal a new, more collaborative role for unions if they are to survive.

This thesis investigates these issues within the Brazilian white goods industry. How and why have work/labour processes and industrial relations changed during the process of industrial modernisation in Brazil, are the central questions of this thesis. Part A (Chapters 1-3) of the thesis sets the scene for this study. Chapter 1 surveys the recent empirical and theoretical literature on the 'transformation' of management and the workplace, noting both the positive and negative claims made about the processes and outcomes involved. The chapter also presents hypotheses and a methodology for the study.

Chapter 2 examines the specific context of Brazil. This provides the economic, political and labour relations' environment for the detailed case studies discussed in subsequent chapters. Chapter 2 also reviews the specific Brazilian literature on modernisation and thus sets up the specific themes and questions to be examined within the empirical analysis. Chapter 3, on the other hand, presents an overview of the political economy of the white goods industry in Brazil and provides background information on the firms and plants that were selected for detailed study.

Chapters 4 to 7 present the empirical findings for the workplaces, workers and unions involved in this study of the modernisation process in Brazil. Part B (Chapters 4 & 5) analyses the nature of modernisation and how it has affected work and labour processes. Part C (Chapters 6 & 7) examines industrial relations issues. How has modernisation affected workers' attitudes to the employer and the union and how have unions responded to this situation? The thesis conclusion draws from all aspects of this study in its summary of the consequences of industrial modernisation for work, the labour process and industrial relations in Brazil.

**PART A:**  
**MODERNISATION: THEORETICAL AND EMPIRICAL ISSUES**

## CHAPTER 1:

### MODERNISATION THEORY AND THE THESIS' METHODOLOGY

#### 1.1 INTRODUCTION

'This Japanese model...it isn't appropriate in Brazil,...it doesn't fit well with Brazilian realities and Brazilian culture'<sup>1</sup>. As highlighted by this quote from a Brazilian factory worker, this thesis was prompted by an interest in the applicability of new models of industrial modernisation in a country such as Brazil. Some authors are very optimistic about the 'mutual gains' to employers, workers and unions if they embrace industrial modernisation. Equally, other authors (in Brazil and in the West) question the nature of modernisation and its effects on work, worker subjectivity and union behaviour. Consequently, the aim of this chapter is to analyse the modernisation concept and the various international interpretations of its determinants and effects. This discussion sets the scene for the ensuing empirical analysis of modernisation (Chapters 4-7) as applied in the broader Brazilian (Chapter 2) and the specific case study (Chapter 3) contexts.

In terms of the international literature, this chapter argues that key aspects of an optimistic interpretation of modernisation are very much open to debate. The partial nature of most examples of modernisation seriously challenges optimistic claims about changes to work and attitudes. The reality of the suggestion that new types of co-operative relationships will or must emerge between capital and organised labour can also be questioned.

What emerges from the literature is that the form of modernisation will be uncertain due to the moderating effects of the context into which it is introduced. More fundamentally, interpreting modernisation in a most optimistic way lacks realism due to the assumptions we are asked to believe about the intent of employers and the degree to which modernisation will affect work, workers' attitudes and unions' strategies.

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<sup>1</sup> Brastemp-Rio Claro interview, RCL8, 9/93.

Even in those firms which are successfully employing a comprehensive modernisation model, these effects are uncertain – they remain empirical issues. For these reasons, a key comparison for study is between partially and comprehensively modernised firms.

This chapter is structured as follows. Section 1.2 defines the concepts and processes behind an optimistic view of modernisation. It also notes the key areas of debate between optimistic and more sceptical commentators. The most applicable model for the industry and products of this study is the so-called ‘Japanese/lean production’ model.

Section 1.3 reviews a number of key international studies of modernisation. These studies suggest that any changes to work and attitudes, as a result of modernisation, may be far more limited than optimists predict. These findings suggest even greater caution when modernisation is considered in LDCs such as Brazil.

From a more theoretical angle (section 1.4), an optimistic modernisation schema seriously challenges a traditional labour process perspective. However, while the ‘politics of production’ is seen to provide a useful guide to an analysis of modernisation and labour processes<sup>2</sup>, it can be improved upon as a framework. A more robust consideration of power, control, resistance and contextual factors would allow this.

Section 1.5 takes these issues of power, control and resistance further by considering the challenges modernisation raises for unions. Militant unionism seems to be under threat due to factory level modernisation and broader structural and political changes. However, there are serious questions as to whether moderate unionism can be an effective alternative strategy, especially in already ‘hostile’ industrial relations environments such as in Brazil. Section 1.6 summarises the themes raised by this discussion and sets out the methodology for this study.

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<sup>2</sup> M. Burawoy, The Politics of Production, (London, 1985).

## 1.2 INDUSTRIAL MODERNISATION - CONCEPTS AND PROCESSES

The 1980s and 1990s saw a renewed emphasis on the need to modernise management and workplace systems, both in developed and in developing countries<sup>3</sup>. Quality, flexibility and efficiency have emerged as the dominant catchcries of firms wishing to prosper within rapidly changing markets<sup>4</sup>. It would be wrong to suggest to these objectives have not been important in the past and terms such as quality and flexibility are often ill defined<sup>5</sup>. However, trade and investment flows are more open in much of the world and many firms have been experimenting with an 'industrial model' based on these premises<sup>6</sup>. Accordingly, the following discussion of the modernisation concept starts with the presentation of a composite of the common aspects of the models of key optimistic writers on modernisation<sup>7</sup>.

### The Optimistic Hypothesis:

The starting point for an optimistic view of modernisation is that management comes to employ a clearer strategy and a more open approach<sup>8</sup>. Quality and continuous improvement should be promoted not only through a new mission statement but also through simpler organisational structures and more generous and democratic human resource policies and incentive systems. All levels of management must support these policies and processes.

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<sup>3</sup> The international literature is discussed below. For a recent expose of the modernisation argument for Brazil see, J. Gonçalves and C. Dreyfus (coords), Reengenharia das Empresas – Passando a limpo, (São Paulo, 1995).

<sup>4</sup> A key early exponent of 'quality' was, W. Deming, Out of the Crisis, (Cambridge, 1986). The integration of this into a flexibility 'concept' can be seen in, M. Piore and C. Sabel, The Second Industrial Divide: Possibilities for Prosperity, (New York, 1984).

<sup>5</sup> Well discussed in, Making Quality Critical – New Perspectives on Organizational Change, eds. D. Knights and H. Willmott (London, 1993) and R. Hyman, 'Flexible Specialization: Miracle of Myth?' in New Technology and Industrial Relations, eds. R Hyman and W. Streek (London, 1988).

<sup>6</sup> Clear from this chapter (section 1.3) and for Brazil (Chapter 2, section 2.4).

<sup>7</sup> The optimistic elements noted below are derived from – Piore and Sabel, Second Divide, H. Kern and M. Schumann, The End of the Division of Labour? (Munich, 1984), R. Walton, 'From control to commitment in the workplace', Harvard Business Review, (1985), 3-4, pp78-84; J. Lincoln and A. Kallenberg, Culture, Control and Commitment, (Cambridge, 1989); J. Womack, D. Jones and D. Roos, The Machine that Changed the World, (New York, 1990), M. Piore, 'Unions: A Reorientation to Survive', in Labor Economics and Industrial Relations, eds. C. Kerr and P. Staudohar (London, 1994), pp512-544; T. Kochan and P. Osterman, The Mutual Gains Enterprise, (Boston, 1994) and E. Appelbaum and R. Batt, The New American Workplace, (New York, 1994).

<sup>8</sup> The following elements are discussed in Kochan and Osterman, Mutual Gains, pp45-58.

At the shopfloor, modernisation will involve new production technologies and techniques and a new approach to work. Optimists argue for work which has more responsibility and worker autonomy. Furthermore, they suggest that employee relations will be based on much higher levels of involvement than in the past. Consequently, individualism and collectivism combine in new ways in the modernised firm<sup>9</sup>.

These changes to the firm are based on the apparently simple idea that modernisation will lead to a change in attitudes and that this will translate into the enhanced performance of the firm<sup>10</sup>. There are three major causal links within this idea. These relate to the suggested effects of modernisation policies on 1) work and attitudes to work, 2) the degree of worker attachment to the firm, and 3) the nature of worker representation. Worker allegiance to the firm emerges so that the concept of 'us and them' is no longer relevant and unions have to modify their behaviour so that they don't now become the 'them' in workers' eyes<sup>11</sup>.

First, some combination of new technologies and techniques in production will change workers' tasks and responsibilities. Multiskilling is a term often used for these new skill profiles, ones which recombine conception and execution skills<sup>12</sup>. The jobs of direct production workers, in particular, will now include process monitoring and greater responsibility for maintenance<sup>13</sup>. Combined with the new tasks involved in teams and other involvement initiatives, work itself will become more satisfying. This has also prompted some writers to coin the phrase, 'working smarter, not harder'<sup>14</sup>.

Secondly, even if these changes to work are not enough to indirectly enhance the firm's performance, a matrix of incentives and structures to 'go the extra mile' for the firm will directly create the right corporate culture for the level of quality,

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<sup>9</sup> See - N. Bacon and J. Storey, 'Individualism and Collectivism and the Changing Role of Trade Unions', in The New Workplace and Trade Unionism, eds. P. Ackers, C. Smith and P. Smith, (London, 1996), pp41-76.

<sup>10</sup> A point succinctly made in Lincoln and Kallenberg, Culture, p4.

<sup>11</sup> See on this concept, - J. Kelly and C. Kelly, "Them and Us": social psychology and 'the new industrial relations', British Journal of Industrial Relations, (1991), 29, 1.

<sup>12</sup> See Piore and Sabel, Second Divide.

<sup>13</sup> See Kern and Schumann, Division of Labor.

<sup>14</sup> An argument popularised by, Womack et al, The Machine

efficiency and flexibility the firm needs from its workforce<sup>15</sup>. These include the decentralisation of operational decision making across the firm, the creation of team based production and the offering of internal labour market (ILM) conditions such as training and greater job security. Decision making is closer and more personal, workers appear to have more responsibility, involvement and autonomy and all 'associates' are encouraged to see their future as one and the same as the firm's.

The third link within the optimistic modernisation argument relates to the role of unions, particularly if workers are being encouraged to have more attachment to the firm. Many authors suggest that unions must co-operate, perhaps dispensing with their earlier political agendas but definitely focussing on ways in which they can promote both the interests of the firm and its workers<sup>16</sup>. Means suggested for achieving this include greater participation in committee structures, negotiated trade-offs and works council type models<sup>17</sup>.

In summary, these changes to management (style, structures and policies) and the workplace (tasks, employee relations and employment conditions) appear to stand in stark contrast to traditional Fordist and Taylorist practices. Work will become more interesting, autonomous and responsible. Most importantly, the 'old' wage-effort bargain has been replaced by a psychological bond between the employee and the company. The importance of new workplace processes to the modernising firm also suggests that the firm has become more dependent on (the attitudes and behaviour of) its employees than in the past<sup>18</sup>.

When these modernisation policies are applied in a comprehensive way, the organisational attachment which emerges is expected to have a variety of important effects on the firm's performance<sup>19</sup>. For example, workers will be motivated to produce quality (low defect rates, minimum waste) and always search for improvements to

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<sup>15</sup> See, Lincoln and Kallenberg, Culture, pp13-16.

<sup>16</sup> See, Piore, 'Unions...Reorientation' and, Kochan and Osterman, Mutual Gains, Ch. 6.

<sup>17</sup> Discussed in section 1.5.

<sup>18</sup> A key implication of, Womack et al, The Machine, and N. Oliver and B. Wilkinson, The Japanisation of British Industry, (Oxford, 1988/92)

<sup>19</sup> Succinctly summarised by D. Guest, 'Human Resource Management, Trade Unions and Industrial

processes and products. In addition, the firm will make savings on their organisational and supervisory budgets due to reduced bureaucracy, lower turnover rates and the more effective amortisation of training resources. Moreover, organisational attachment implies that workers will prefer the firm's 'view of the world' to the views of others. This suggests that unions must develop more co-operative approaches to the firm, a development of further benefit to the firm's performance.

### Model Variety and Definitional Debates:

While the specific form of modernisation is often divided into a number of ideal types<sup>20</sup>, many of these models use similar concepts. For instance, the 'flexible specialisation' hypothesis built on the idea of Kern and Schumann that conception and execution skills were being recombined<sup>21</sup>. The flexibility concept even came to be associated with new inter-firm relations within older industries in regions of Germany and Italy and the 'German Diversified Quality Production' model<sup>22</sup>.

A principal difference between 'Continental European' models and more recent Anglo-Saxon 'strategies' (such as 'lean production' and the 'Japanese' model) has been that the former stressed the role of new technologies<sup>23</sup>. In contrast, the later models have come to put more emphasis on process improvements and more detailed human resource policies<sup>24</sup>. In the UK and the US (new) models of 'Human Resource' and 'Total Quality' management (HRM/TQM), which are assumed to use these 'softer' qualitative processes, have become very popular<sup>25</sup>.

The industry (white goods) chosen for this study is a relatively low skilled producer of discrete, standardised products for mass markets. As such, the most

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Relations', in Human Resource Management- A Critical Text, ed. J. Storey, (London, 1995), p113.

<sup>20</sup> For a discussion of these models see, Appelbaum and Batt, New Workplace, pp27-55.

<sup>21</sup> A la Piore and Sabel, Second Divide; Kern and Schumann, Division of Labour.

<sup>22</sup> Appelbaum and Batt, New Workplace, pp37-39, pp39-42.

<sup>23</sup> J. Morris and B. Wilkinson 'The Transfer of Japanese Management to Alien Institutional Environments', eds. Introduction, Journal of Management Studies - Special Issue, (1995) ,32 , 6, pp719-720.

<sup>24</sup> Ibid.

<sup>25</sup> For a discussion of these see, Human Resource Management: A critical text, ed. J. Storey, (London, 1995) and Making Quality Critical, eds. D Knights and H. Willmott.

applicable referent for the case studies of this research is the so-called 'Japanese/lean production' model. This is a composite model based on perceptions of large Japanese firms and an MIT portrayal of 'best practice' human resource management<sup>26</sup>.

In its most circumspect form the 'Japanese' model has been defined as follows<sup>27</sup>. First, it uses production flow concepts such as Just-in time (JIT), Statistical Process Control (SPC) and Kanban workplace practices. Secondly, it emphasises continual learning-by-doing improvements (Kaizen) and task dexterity. Thirdly, it puts a priority on quality through participative groups and non-linear structures of production. Other authors have broadened the discussion to include features more peculiar to certain Japanese firms such as lifetime employment, company unionism and seniority based wages<sup>28</sup>.

However, there are a number of difficulties evident in some writings about the 'Japanese' model and, subsequently, in relation to the question of transferability. For example, those Japanese firms which have appeared to apply the model are not homogeneous and are still experimenting<sup>29</sup>. In addition, the so-called 'three treasures' of the model (lifetime employment, company unionism and seniority based wages) are quite specific to the Japanese development process thus making it uncertain whether they can be transferred<sup>30</sup>.

More critically, these 'treasures' appear to be supported by less positive features such as a very distinct and precarious secondary labour market and subcontracting system – factors which may have merely helped Japanese employers control workers and unions more effectively<sup>31</sup>. In addition, studies of the Japanese

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<sup>26</sup> Best popularised by Womack et al, The Machine.

<sup>27</sup> See, J. Humphrey, 'The Adoption of Japanese Management Techniques in Brazilian Industry', Journal of Management Studies – Special Issue, (1995), 32, 6, p769.

<sup>28</sup> On this see, Oliver and Wilkinson, The Japanisation and Applebaum and Batt, New Workplace, pp46-52, Table 4.1.

<sup>29</sup> Well discussed by, S. Wood, 'Japanization and/or Toyotatism?', Work, Employment and Society, (1992), 5, 4, pp567-600.

<sup>30</sup> For a review of the Japanese experience see C. Littler, The Development of the Labour Process in Capitalist Societies, (1982), Ch.10.

<sup>31</sup> See, for example, S. Ackroyd, G. Burrell, M. Hughes and A. Witaker, 'The Japanization of British Industry', Industrial Relations Journal, (1988), 19, 1, pp11-23. See also, T. Elgar and C. Smith,

experience suggest that workers in Japan have a low level of satisfaction with their work<sup>32</sup>. More productive behaviour stems more directly from allegiance to the firm<sup>33</sup>.

These definitional debates have led some to suggest that, for other situations to be realistically analysed relative to the 'Japanese/lean production' model they must be defined relative to what their features do to promote production objectives such as smooth production flow, continuous improvement and quality products<sup>34</sup>. Accordingly, the means chosen to achieve these objectives include the adoption of a quality strategy (e.g. TQM), JIT methods and associated process techniques and technologies. In line with these systems, initiatives which promote closer employee relations (e.g. reduced supervision and involvement schemes) and enhanced employment conditions (e.g. training) also appear fundamental. However, whether a firm chooses to use more far reaching examples of these themes such as, opening up the firm to more democratic processes, the offering of job security and promotion prospects and a truly inclusive role for unions, is less certain.

#### A Sceptical Critique:

Aside from these definitional debates, the degree of change implied by an optimistic view of modernisation is open to three related critiques. These concern the benchmark used to evaluate change, the assumptions involved in the hypothesis and the effects of an 'alien' context. First, the degree to which present Fordism and Taylorism were applied in the past is seriously questioned in the literature. For example, the timing, form and degree of diffusion that Fordism/Taylorism took in the US differed significantly to that in the UK and in Brazil<sup>35</sup>.

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'Global Japanization? Convergence and competition in the organization of the labour process', in Global Japanization, eds. T. Elgar and C. Smith, (1994), p41-45 and Morris and Wilkinson, 'Transfer...Japanese', pp723-725.

<sup>32</sup> Noted for the literature in Lincoln and Kallenberg, Culture, p4 and for their study, Ch. 9. In fact, international studies note that job satisfaction has strong links to reduced turnover and absenteeism and not to company allegiance (D. Guest, 'Human Resource Management and industrial relations', Journal of Management Studies, (1987), 24, 5, p513-514 and Lincoln and Kallenberg, Culture, p25.

<sup>33</sup> Ibid.

<sup>34</sup> As argued by Humphrey, 'Japanese Management...Brazilian Industry', p769.

<sup>35</sup> See E. Silva, "Remaking the Fordist Factory?: Industrial Relations in Brazil in the past and for the future", conference paper – 'Autor du Modele Japonais: Automatisation, Nouvelles Formes

More importantly, how far the 'Japanese' model really differs from, as opposed to improves on, features such as the task division, surveillance and incentive principles of the Fordist/Taylorist model has been questioned for some time. For example, an emphasis on continuous improvement, non-linear teamwork and participatory forums may be new. Task profiles may also be new. However, once established, tasks may be subject to the same evaluative (but ongoing) process associated with Taylorism<sup>36</sup>. Incentives may also be of a different or better form but decentralised processes may make peer pressure an even more effective method for enforcing productive behaviour than do piece rates and overt supervision<sup>37</sup>. In terms of a management model, the real processes behind TQM and associated human resource strategies may be just as 'hard' (i.e. efficiency vs humanistic orientated) as Fordism<sup>38</sup>.

The internal mechanisms and assumptions optimists ask us to believe about employer intent, work and industrial relations effects have also been questioned in their own right. For instance, the effect of modernisation on skills and tasks is very unclear. Product market, local labour market and globalisation strategies are just a number of the factors still clouding the discussion of job redesign and the debate about the effect of technology on skills<sup>39</sup>. In contrast, the optimistic view suggests that there will be a clear change in the firm's approach to skill development and task allocation.

However, it is just as likely that skills will become more polarised between groups of workers or that, where skill changes occur, multitasked is a more apt description of their new jobs<sup>40</sup>. Even if production workers are given ILM like conditions for motivational reasons, their tasks may remain repetitive and/or be more

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d'organisation et de Relations de Travail', Paris, (1990).

<sup>36</sup> Noted some time ago, even for the Japanese auto sector, by K. Dohse et al, 'From "Fordism" to "Toyotism"? The social organisation of the labour process in the Japanese automobile industry', *Politics and Society*, (1985), 14, 2, pp115-146.

<sup>37</sup> As argued by G. Sewell and B. Wilkinson, 'Someone to watch over me: Surveillance, discipline and the Just-in Time labour process', *Sociology*, (1992), 26, 2, pp271-289.

<sup>38</sup> Well argued by A. Tuckman, 'The Yellow Brick Road: Total Quality Management and the Restructuring of Organizational Culture', *Organizational Studies*, (1994), 15, 5, pp727-751 and A. Spencer, 'Models of Organization and Total Quality Management: A Comparison and Critical Evaluation', *Academy of Management Review*, (1994), 19, 3, pp446-471.

<sup>39</sup> Arguments made by J. Kelly, *Scientific Management, Job Redesign and Work Performance*, (New York, 1982) that seem just as valid in this context.

<sup>40</sup> See, for example, D. Gallie, 'Patterns of Skill Change: Upskilling, Deskilling or the Polarization of

demanding<sup>41</sup>. More drastically, rather than production workers gaining new maintenance responsibilities, maintenance workers may merely take on their (less skilful) production tasks and jobs<sup>42</sup>.

Turning attention to more structural issues, an anti-bureaucratic emphasis pervades the work of many optimistic writers<sup>43</sup>. This contradicts earlier sociological traditions which suggested that organisational structures could be technically efficient, conflict reducing and consent promoting<sup>44</sup>. Thus, optimists appear to be asking for a high level of faith that fewer hierarchies will help to promote an attitude much stronger than consent.

On the other hand, many modernisation authors also make ample use of a simple and optimistic interpretation of the ILM as a key facilitator of allegiance<sup>45</sup>. However, while ILMs may be an effective productivity mechanism for employers, new screening and selection methods might be used to the disadvantage of employees who take a more questioning approach to the new unitary message of the firm<sup>46</sup>. Alternatively, ILMs may create no more than a comfortable 'cage' of employment conditions for workers, many of whom may also like greater flexibility in the open labour market<sup>47</sup>.

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Skills?', Work, Employment and Society, (1991), 5, 3.

<sup>41</sup> See, R. Delbridge, P. Turnbull and B. Wilkinson, 'Pushing Back the Frontiers: management control and work intensification under JIT/TQM factory regimes', New Technology, Work and Employment, (1993), 7, 2, pp97-107.

<sup>42</sup> Noted by, B. Dankbaar, 'New Production Concepts, Management Strategies and the Quality of Work', Work, Employment and Society, (1988), 2, 1, pp25-51.

<sup>43</sup> For example, Piore and Sabel, Second Divide; Walton, 'From Control..', and Womack et al, The Machine.

<sup>44</sup> That is, Weber's idea that bureaucracy helps make authority less visible and conflictual (M. Weber, The Theory of Social and Economic Organization, (London, 1964)); Durkheim's concept of the moral authority of the firm (E. Durkheim, The Division of Labour in Society, (London, 1984)); and Williamson's argument that bureaucratic structures can be conducive to an atmosphere where individual differences ('opportunism') are minimised and corporate objectives given primacy (O. Williamson, Economic Organisation, (Brighton, 1986)).

<sup>45</sup> An argument integral to – Lincoln and Kallenberg, Culture, Applebaum and Batt, New Workplace and Kochan and Osterman, Mutual Gains.

<sup>46</sup> An argument popularised (with a neutral efficiency slant) by P. Doeringer and M. Piore, Internal Labour Markets and Manpower Analysis, (Lexington, 1971) and then given a more discriminatory emphasis by, R. Edwards, M. Reich and D. Gordon, Labour Market Segmentation, (Lexington, 1975)

<sup>47</sup> See, P. Dawson and J. Webb, 'New Production Arrangements: The Totally Flexible Cage?', Work,

In terms of industrial relations, workers may enjoy many aspects of modernisation. Thus, unless dual allegiance to the employer and union is a real possibility<sup>48</sup>, this will create difficulties for unions. When management has significant prerogative over workplace conditions and the role of unions at the workplace, unions' future success may require new types of combative strategies for countering the message of the modernised firm. Such policies may be all the more difficult in countries (e.g. Brazil) which have a harsh facilitating environment<sup>49</sup>.

Following this last point, the third strand to the critique of the degree of change implied by an optimistic view of modernisation is thus, will an 'alien' context alter the form of modernisation being considered<sup>50</sup>? Employers may think, 'in this particular location what do we have to offer, and how much, to gain the required level of work effort and firm attachment?' Terms such as 'teamwork' and 'participation' are capable of a wide variety of interpretations<sup>51</sup>.

At a broad level, factors such as the macroeconomic and political environment may affect the nature of a modernisation strategy. At the local level, additional issues such as educational levels, unionisation and labour supply may be determinant. In Brazil (as in other environments) the influence of both local and broader contexts must be kept in mind<sup>52</sup>.

Taking these contextual considerations further, the debates about modernisation and its transference are complicated by the locational choices of transnational capital

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Employment and Society, (1989), 3, 2, pp221-238.

<sup>48</sup> Not likely as studies have shown that dual attachment is low in most countries, even in Japan (Guest, 'Human Resource Management', p115). Nevertheless, a more complicating observation is that many different combinations of attachment (0-high) to the company, work and union may be possible and that these may vary by issue – see *ibid.*, pp 113-115 and Lincoln and Kallenberg, Culture, pp23-24

<sup>49</sup> See, on this issue, – S. Deery et al, 'Predicting Organizational and Union Commitment: The Effect of Industrial Relations Climate', British Journal of Industrial Relations, (1994), 32, 4, pp581-597. The Brazilian 'facilitating environment' is fully summarised in Chapter 2.

<sup>50</sup> A key theme of 'The Transfer of Japanese Management to Alien Institutional Environments', Journal of Management Studies- Special Issue, (1995), 32, 6.

<sup>51</sup> Highlighted by M. Gaudier, 'Workers' Participation within the new industrial order: A review of literature', Labor and Society, (1988), 13, 2.

<sup>52</sup> A view strongly endorsed for Europe (C. Lane, Management and Labour in Europe, (Aldershot, 1989)) and Brazil (Sobre O Modelo Japonês, ed. H. Hirate (São Paulo, 1993)).

(TNCs)<sup>53</sup>. The use of 'greenfields' sites in low wage, depressed environments is an old theme given added prominence by the modernisation debate. From a radical perspective, the international division of labour may be heightened by modernisation<sup>54</sup>. This is because TNCs may use more modern techniques in the parent country while Fordism and Taylorism may even be reinforced in 'satellite' production centres such as Brazil.

In summary, these critiques of the internal processes, structures and the context surrounding any modernisation experiment act to question the attitudinal and behavioural basis of the optimistic modernisation argument. Even if work is more skilled and interesting, modernisation may not actually mean that worker control and forms of resistance have disappeared and been replaced by worker allegiance and union co-operation. A worst case scenario is that workers may actually be under greater stress, surveillance and control in these new systems and that unions are not in a position to do much about it<sup>55</sup>.

The next three sections of this chapter consider these critiques more closely. Section 1.3 examines a number of key international studies of management and workplace change and section 1.4 provides a more theoretical critique of the processes involved in modernisation. These themes are elaborated for the union dimension in section 1.5.

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<sup>53</sup> See, on this, Global Japanization? The transnational transformation of the labour process eds. T. Elgar and C. Smith (London, 1994).

<sup>54</sup> See, A. Lipietz, 'Towards Global Fordism?', New Left Review, (1982), 132; A. Pollert, 'The Flexible Firm: Fixation or Fact?', Work, Employment and Society, (1988), pp281-286 and Hyman, 'Flexible Specialisation'. Views reinforced more recently in Elgar and Smith, 'Global Japanization', pp53-54.

<sup>55</sup> For workers see, Sewell and Wilkinson, 'Someone to watch over me' and Delbridge et al, 'Pushing back the frontiers'. An authoritative volume on union issues is, The New Workplace and Trade Unionism, eds. P. Ackers, C. Smith and P. Smith, (London, 1996).

### 1.3 MANAGEMENT AND WORKPLACE MODERNISATION – WHAT HAS REALLY CHANGED?

By the mid-1980s, some authors claimed to have observed a new commitment based approach to industrial organisation within their work as management consultants<sup>56</sup>. By the mid-1990s, others claimed to have a mix of survey and case study evidence which suggested that a discernible process of modernisation was underway and that it could be a positive development for workers and unions<sup>57</sup>. This section reviews this evidence and compares it to critical studies of these and other modernisation experiments, in the US and the UK in particular.

#### Prominent Optimists:

One very bold portrayal of modernisation is that put forward by Kochan and Osterman<sup>58</sup>. They claim to have evidence to show that many US firms are attempting to create what they call the 'Mutual Gains' firm. As summarised in section 1.2, their model has three levels – the strategic, the functional/HRM level and the workplace level<sup>59</sup>.

Other authors such as Applebaum and Batt express a similar level of optimism but one which is more nuanced<sup>60</sup>. Conceptually, what they suggest is that two types of model are emerging in the US<sup>61</sup>. Up to the mid-1980s, they describe most attempts to modernise as partial – simply the application of a few human resource policies to existing Fordist processes and low trust industrial relations. However, they feel that many firms are now using what they call US lean production (USLP) and US team production (USTP).

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<sup>56</sup> For example, Walton, 'From control'.

<sup>57</sup> Two key works are, Applebaum and Batt, New Workplace, and Kochan and Osterman, Mutual Gains.

<sup>58</sup> Kochan and Osterman, Mutual Gains.

<sup>59</sup> *Ibid.*, Ch. 3, where all three levels are discussed.

<sup>60</sup> Applebaum and Batt, New Workplace.

These two strategies are very similar in that they are based on TQM/JIT principles. Quality and continuous improvement processes are applied throughout a leaner firm. However, USLP relies more heavily on a top-down process and 'harder' evaluative procedures. A USTP approach, on the other hand, is 'softer' in that it also applies decentralised decision making and teams (with broad responsibilities and humanistic goals) to its production strategy.

Applebaum and Batt suggest that the results for the firm's performance from both approaches are very similar<sup>62</sup>. Yet the processes and outcomes for tasks and employee relations may be different. Similarly, as suggested by Kochan and Osterman, in practice either strategy may exist in a non-union environment. However, the longer-term sustainability of a modernisation strategy will be enhanced if unions have an active and inclusive role<sup>63</sup>.

Many of the arguments of these authors are echoed within an in-depth comparison of a large sample of US and Japanese firms by Lincoln and Kallenberg<sup>64</sup>. The model of these authors, 'Welfare Corporatism' (WC), is based on structures and incentives which promote – participation, integration, mobility, careers and legitimacy and constitutional order within the firm<sup>65</sup>. The authors claim that their model is also a practical view as it mirrors their analysis of many Japanese firms<sup>66</sup>.

Lincoln and Kallenberg's approach uses a more sophisticated view of structures and incentives than do the above authors. For example, the WC firm retains centralised control but decentralised decision making combined with extensive employment benefits and welfare services help promote allegiance (commitment) to the firm. Secondly, they are more categorical in their view that allegiance to the company does not flow from work satisfaction<sup>67</sup>. Thirdly, these authors also believe that modernisation has a better chance if unions are involved. Yet, rather than arguing for whole hearted

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<sup>61</sup> Ibid., Ch. 8.

<sup>62</sup> Ibid.

<sup>63</sup> Ibid., Ch 6 and 9; Kochan and Osterman, Mutual Gains, Ch 6.

<sup>64</sup> Lincoln and Kallenberg, Culture.

<sup>65</sup> Ibid., pp14-16.

<sup>66</sup> Ibid.

union co-operation, they suggest (based on the Japanese example) that it should be a type of unionism which does not overly divert attention away from a focus on the firm's success<sup>68</sup>.

Through the examination of both internal structures and external factors<sup>69</sup>, Lincoln and Kallenberg test whether the cultural context of the model determines its applicability and success. They conclude that while culture is important, it only has an indirect and additive influence on whether 'Welfare Corporatism' can lead to company allegiance and enhanced company performance<sup>70</sup>. Thus the apparent commitment (allegiance) they observe can be replicated.

Lincoln and Kallenburg then suggest that the important (additional) aspects of Japanese firms which US companies should incorporate into their modernisation effort are – broader and more generous ILMs, greater worker input (at all levels of the enterprise) and fewer real inequalities between employees<sup>71</sup>. Finally, Lincoln and Kallenberg's analysis is more empirically robust and less normative than the other studies mentioned above. However, the changes they suggest would make US firms look very much like US team production (USTP) and the 'Mutual Gains' enterprise.

#### 'Optimistic' Survey and Case Study Evidence:

The evidence that writers rely on to support an optimistic hypothesis comes from surveys and from a variety of case studies. For example, Kochan and Osterman draw from their own national establishment survey and an international survey of TQM practices<sup>72</sup>. The authors note that, from within a list of workplace practices, over 50% of US firms use teams and one third of establishments employ TQM techniques<sup>73</sup>. While the percentage of employees involved in any one technique is low and even though firms are using workplace techniques in diverse clusters, they also report that

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<sup>67</sup> Ibid., p4, p254.

<sup>68</sup> Ibid., pp229-232.

<sup>69</sup> Ibid., Ch 8.

<sup>70</sup> Ibid., pp250-251.

<sup>71</sup> Ibid., pp248-249.

<sup>72</sup> Kochan and Osterman, Mutual Gains, pp79-109

nearly 40% of the sample used to at least two practices for which a minimum of 50% of employees were involved<sup>74</sup>.

Similarly, the surveys reviewed by Applebaum and Batt suggest that up to a third of enterprises have made changes to the organisation of work and that a third of large firms have serious quality programmes<sup>75</sup>. Many of these are reported to be working well. Based on significant growth in modernisation initiatives between 1987 and 1990, the authors suggest that this momentum will not abate<sup>76</sup>.

However, these surveys are not as convincing as they might appear. For example, low diffusion rates (of employee involvement) and the random clustering of technique use do not bode well for an argument which suggests that a new paradigm of industrial organisation is emerging. Secondly, these surveys rely on management responses, just those people who may have a motive to play up the significance of their 'innovations'. The careful compilation of case study evidence could address these uncertainties.

The case studies reviewed by these authors, on the other hand, while playing up the success of a number of well-known 'best case' firms, do not paint such an optimistic picture of change<sup>77</sup>. What they do achieve is to alert the reader to the prevalence of partial modernisation and to the problems this creates. They then use these issues to promote their 'menus' for change.

For instance, frequent reference is made to the high profile, comprehensive experiences of US ventures such as Saturn, NUMMI, Xerox, Motorola, Hewlett Packard and CAMMI<sup>78</sup>. In the UK, the experience of Nissan is often heralded for its comprehensive approach to lean production and TQM<sup>79</sup>. Most of these examples have

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<sup>73</sup> Ibid., p83.

<sup>74</sup> Ibid., p86.

<sup>75</sup> Applebaum and Batt, New Workplace, pp57-68.

<sup>76</sup> Ibid.

<sup>77</sup> Ibid., pp69-97 ; Kochan and Osterman, Mutual Gains , pp58-77.

<sup>78</sup> Kochan and Osterman, Mutual Gains, pp58-77

<sup>79</sup> See, P. Wickens, 'Lean Production and Beyond: The System, its Critics and the Future', Human Resource Management Journal, (1994), 3, 4, pp 75-90.

made real changes to management and workplace practices and the scope and depth of employee involvement. However, while these examples most closely fit the optimistic model, they are in the minority and relate mainly to key players in the auto and electronic sectors.

The majority of case studies reviewed by these optimists fall far short of meeting the criteria of the model<sup>80</sup>. For example, at the workplace, instances of teamwork offer almost no examples of autonomy and only a few of semi-autonomous work groups<sup>81</sup>. Most teams are still heavily supervised, albeit often in more indirect ways. Moreover, it appears that, while workers prefer greater involvement, teams on their own do not satisfy this desire. Complementary pay policies and a real feeling of greater job security are also necessary.

Correspondingly, at the HRM level, most case studies suggest that involvement schemes are usually limited to a small number of 'soft' issues and remain relatively unimportant parallel (rather than integrated) structures within the firm<sup>82</sup>. Progress on the implementation of new pay policies is even less clear. Similarly, expanded training is often about the 'firm' and qualitative, firm specific techniques.

In addition, the case studies leave it uncertain whether new skills are rewarded. Employment security and promotional prospects may alleviate these concerns. However, gain-sharing schemes are seen with reservation unless an adequate base rate is guaranteed and only if industrial relations are already good<sup>83</sup>.

At the strategic level, the optimists' case study examples appear to support a variety of 'visions' for company level change<sup>84</sup>. However, in terms of implementation, examples are still hierarchical, linked to 'downsizing' and overemphasise immediate performance objectives. Finally, it is interesting to note that it is almost always only at 'greenfields' sites (where unions are absent or weak) that the components of the model

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<sup>80</sup> Applebaum and Batt, New Workplace, pp 69-97 ; Kochan and Osterman, Mutual Gains, pp 58-77.

<sup>81</sup> Kochan and Osterman, Mutual Gains, pp68-71; Applebaum and Batt, op. cit., pp 75-88

<sup>82</sup> Kochan and Osterman, op.cit., pp 71-74; Applebaum and Batt, op. cit., pp 75-88

<sup>83</sup> Kochan and Osterman, op. cit., p74

come together in a more comprehensive form<sup>85</sup>.

### More Critical Studies:

Other studies of modernisation, in comparable production line industries to white goods, expand upon these critiques of the modernisation process. This is because context has an important modifying effect on the form of modernisation. Moreover, the changes to attitudes and behaviour implicit to an optimistic view are seriously questioned even in those firms who have achieved very high levels of performance.

For example, Kenney and Florida's study of Japanese transplants and joint ventures in the US auto and electronics industries highlights how fully the 'Japanese' model is transferred in one industry (autos) and how partially in another (electronics)<sup>86</sup>. Changes such as team work, simplified job classifications, worker rotation, continuous improvement (Kaizen) initiatives and suggestion programmes are well developed and integrated in their nine Japanese auto examples<sup>87</sup>. In the four non-union, 'greenfield' auto sites new channels for employee involvement have been established and there is the suggestion that greater employment security will be forthcoming<sup>88</sup>. In the five union sites, changes have been secured through restructuring agreements which formalise the union's role.

While the authors suggest that electronics ventures use a model which is more 'modern' than US electronics firms, comparisons with the auto firms are striking<sup>89</sup>. For instance, while suggestion schemes often exist, there are fewer teams, less job rotation and minimal use of continuous improvement mechanisms. Electronics joint ventures base their strategies more on low wages, minimal unionism, stringent controls on absenteeism and a much greater divide between what is offered to the various skill

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<sup>84</sup> Ibid., pp74-75; Applebaum and Batt, *op.cit.*, pp 88-91.

<sup>85</sup> Kochan and Osterman, *op.cit.*, pp75-76.

<sup>86</sup> M. Kenney and R. Florida, 'The Transfer of Japanese Management Styles in Two US Transplant Industries: Autos and Electronics', *Journal of Management Studies – Special Issue*, (1995), 32, 6, pp 789-802.

<sup>87</sup> Ibid., pp791-795.

<sup>88</sup> Ibid., pp793-794.

<sup>89</sup> Ibid., pp795-800.

groups. In the absence of employment stability and any mechanisms to select out or persuade employees to be more loyal and productive, employers have tried to counter high levels of absenteeism by the use of younger workers and through the promotion of supervisors from the shopfloor.

Kenney and Florida's study does note a number of negative aspects of modernisation, even for their more comprehensive auto examples. For instance, they observe that non-union sites discipline absent workers more and that peer discipline is a strong controlling mechanism at all auto sites<sup>90</sup>. Similarly, they note that the degree of modernisation has a relation to the role of a transplant within the global strategies of the parent company and the local context of the transferee<sup>91</sup>. However, their analysis stops at the structural level. Subjectivity receives little to no emphasis. Other studies of the 'Japanese' model in these two sectors help to make up for these deficiencies.

For example, in a detailed participant observation study of a 'typical' Japanese auto transplant in the US, Graham suggests that the 'Japanese' model is actually a more thorough and sophisticated mechanism of control than past production systems<sup>92</sup>. Both technical and social control are enhanced as decentralised decision making helps to reduce worker autonomy and increase work pressure<sup>93</sup>. Jobs are different but they are just as fragmented as in the past. Monitoring is enhanced through new speed/quality checks and incentives and training are used to persuade workers to behave as the firm wishes.

The specific setting for Graham's study was the production line<sup>94</sup>. For each station in the line duties were set and targets were established but the speed of the line could change. New tasks such as cleaning and minor maintenance were expected of 'associates' and the workday commenced 5 minutes early with music, exercises and a 'pep' talk.

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<sup>90</sup> Ibid., p794.

<sup>91</sup> Ibid., pp801-802

<sup>92</sup> L. Graham, 'How does the Japanese Model transfer to the United States? A view from the line', in Global Japanisation, eds. T. Elgar and C. Smith, (London, 1994), pp123-151.

<sup>93</sup> Ibid., p124, 131 on these two areas of control.

<sup>94</sup> Ibid., pp 126-131.

Encompassing this setting, Graham suggests seven mechanisms through which the process of control operates<sup>95</sup>. First, the firm uses a detailed selection process whereby potential problem workers are eliminated through tests of aptitude and 'team player' potential. Secondly, all workers must progress through a series of orientation and training programmes. These cover new processes/concepts, the 'firm' and more detailed modules on attitudes and behaviour. The majority of this training is social.

Thirdly, at the team level it quickly becomes obvious that membership brings many pressures. Failure to meet targets will affect the workload of others and workers are made to feel guilty if they cannot make these new demands. Fourthly, the implementation of a continuous improvement philosophy (Kaizen) means that not only are new tasks subject to detailed time and motion study but that, when targets are reached, speed requirements are increased or 'floaters' (fill-in workers) are removed. Through Kaizen, pressure is increased, tacit skills can be used more fully and workers have fewer opportunities to manipulate workflow to give themselves rest or 'space' to socialise.

Fifthly, team based production acts to create specific group loyalties. However, worker competition is also enhanced within a broader environment which is encouraging greater identification with the firm. Mechanisms which may assist this process include new names for jobs (e.g. 'associates'), a company song and sporting and cultural events.

The sixth and seventh mechanisms of control suggested by Graham relate to the computer assembly line and the JIT process. The new line sets the pace and registers times and fault rates. Attention is focussed on team and individual failure through a sound system, card records and team meetings. Inventory control within the JIT system, on the other hand, increases the speed and intensity of work. By connecting workers up and down the line, slowness and attempts to catch-up become very obvious.

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<sup>95</sup> Ibid., pp 132-141.

The negative, encompassing image painted by this study raises the question - 'what role does resistance now play?' On this issue, Graham notes that within this system control may be greater but it is not total<sup>96</sup>. However, individual opportunities for resistance are much less effective than the past. Collective resistance is more likely to be effective and includes (anonymously) stopping the line and protesting against rituals or extra duties.

The themes that Graham raises about managerial intent and work processes within a 'Japanese' firm have also been considered for other high profile, comprehensive auto ventures such as CAMMI (a GM/Suzuki joint venture) in Canada and Nissan in the UK. The studies by Rinehart et al and Garrahan and Stewart also put a negative, control based interpretation to the role played by selection procedures, training schemes, teams, Kaizen processes and the 'culture' promoting policies of these firms<sup>97</sup>. However, they add to Graham's study of modernisation in a number of important respects.

For example, Garrahan and Stewart's study of Nissan also makes the point that Nissan's policies would not have been as effective if Nissan had not been located in a depressed part of North-east Britain where unemployment was high and wages low<sup>98</sup>. This context also included a reasonably well-educated (but young) potential labour force in much need of work. This made a single union deal relatively easy to organise.

On the other hand, the study by Rinehart et al of shop floor relations at CAMMI adds further depth to Graham's observations about worker attitudes and opportunities for resistance. For example, Graham noted that features such as the selection process had prompted a number of different responses from workers<sup>99</sup>. Some workers were cynical whereas others seemed to be positive about the firm and its

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<sup>96</sup> Ibid., pp141-147.

<sup>97</sup> J. Rinehart, D. Robertson, C. Huxley and J. Wareham, 'Reunifying conception and execution of work under Japanese production management: A Canadian case study', in Global Japanization, eds. T. Elgar and C. Smith, (London, 1994), pp152-174; and P. Garrahan and P. Stewart, 'Work Organisations in Transition: The Human Resource Management Implications of the "Nissan Way"', Human Resource Management Journal, (1992), 2, 2, pp46-62.

<sup>98</sup> Garrahan and Stewart, "Nissan Way", pp49-50, p59 and p60.

<sup>99</sup> Graham, 'A view from the line..', pp141-147.

approach.

By focussing on Kaizen processes, Rinehart et al confirm these responses and add one other. Some workers saw Kaizen as useful but believed that it could have been better organised<sup>100</sup>. Originally, these workers had keenly participated in the company's initiatives but as time progressed participation declined. Many were now taking an instrumental approach to suggestion schemes and quality circles. This was in spite of the growing view that 'voluntary' participation was being used for evaluative purposes.

Team and union leaders had other concerns<sup>101</sup> - that the workforce would become more divided, that ideas were not used and that rewards were insignificant. However, of even greater significance was whether participation actually benefited workers. For example, decisions often placed little importance on safety issues.

More subtly, there was concern that workers could be drawn into a situation where they start to think it is for and by them<sup>102</sup>. For instance, greater job rotation may reduce monotony but it could also reduce upskilling opportunities and, at the same time, reduce injury downtime. Moreover, the firm benefits most from the use of 'floaters', particularly when it is they who have the option not to replace them. In this situation, as Rinehart et al suggest, control becomes more diffuse and sophisticated but no less strong<sup>103</sup>.

The authors conclude that empowerment and autonomy are not clear outcomes<sup>104</sup>. Workers have more voice but no 'vote'. While CAMMI illustrates some positive developments, its contradictions mean that high involvement does not equate to company allegiance or even work satisfaction. For example, the authors' final survey of workers noted that 61% agreed that work was harder rather than smarter<sup>105</sup>. Furthermore, confirming Graham, the authors emphasise that resistance (individual or

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<sup>100</sup> Rinehart et al, 'A Canadian Case Study...', p164-165.

<sup>101</sup> Ibid., pp166-168.

<sup>102</sup> Ibid., p169.

<sup>103</sup> Ibid., pp161-163.

<sup>104</sup> Ibid., pp170-171.

<sup>105</sup> Ibid., p169.

collective) is harder to sustain<sup>106</sup>.

The above examples of comprehensive modernisation caution how the modernisation process is interpreted. Studies of modernisation which go beyond the structural framework of Kenney and Florida present a very different image of modernisation in the auto sector. Similarly, other studies of modernisation in the electronics sector amplify Kenney and Florida's already critical conclusions about modernisation in electronics.

For example, in a study of a comprehensively modernised Japanese transplant in England, Delbridge describes a process whereby the application of JIT/TQM results in a more intense and stressful situation for workers<sup>107</sup>. As noted by the above studies, while workers' responsibilities and levels of involvement increase, more intrusive and effective systems of surveillance, monitoring and peer pressure encompass labourers work lives to a level not experienced before<sup>108</sup>.

In terms of resistance, Delbridge notes that previous factory systems gave workers some opportunity to resist – through unions, custom and practice, tacit skills and buffer stock creation<sup>109</sup>. While some of these methods may have also assisted productivity, modernisation practices greatly limit these options for resistance. Non-union sites or single union deals usually secure more compliant industrial relations. Team peer pressures, electronic monitoring, zero stock systems and ILM incentives make individual resistance strategies much more problematic. The author is even more pessimistic than Graham over the efficacy of resistance in the face of comprehensive modernisation<sup>110</sup>.

Studies of other firms in the electronics sector add further points to consider in relation to the modernisation process. For instance, in a comparative study of a

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<sup>106</sup> Ibid., pp 170-171.

<sup>107</sup> R. Delbridge, 'Surviving JIT: Control and Resistance in a Japanese Transplant', Journal of Management Studies – Special Issue, (1995), 32, 6, pp803-817.

<sup>108</sup> Ibid., pp809-812.

<sup>109</sup> Ibid., pp812-814.

<sup>110</sup> Ibid., p813

Japanese transplant in Wales and a British firm using the 'Japanese' model, Taylor et al<sup>111</sup> note that neither firm appears more dependent on their workers and both use more traditional mechanisms (e.g. gender segregation, fear of economic failure) to obtain consent from their key (male) workers<sup>112</sup>. What does appear to be different between the firms, however, is that the Japanese transplant does have an ILM where workers labour under less Fordist/Taylorist conditions. However, this ILM is in the Japanese parent company in Japan<sup>113</sup>.

This point is elaborated in a study of Japanese electronics transplants in Australia<sup>114</sup>. Dedoussis observes that the conditions offered to different categories of workers in the same firm vary more in transplants than in corresponding firms in Japan<sup>115</sup>. The ILMs of transplants also cover a smaller proportion of the workforce. Transplants often remain peripheral to the parent company and conditions offered to employees in the host country reflect this. To achieve their quality, productivity and flexibility objectives the transplant (or emulator) introduces just enough to make the production facility work in that particular environment<sup>116</sup>. Finally, this variability in, and scepticism about, the modernisation experience is also evident from cross-country<sup>117</sup> and cross sector studies<sup>118</sup>.

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<sup>111</sup> B. Taylor, T. Elgar and P. Fairbrother, 'Transplants and Emulators: The Fate of the Japanese Model in British Electronics', in Global Japanization, eds. T. Elgar and C. Smith, (London, 1994), pp 196-225.

<sup>112</sup> Ibid., p208, pp222-223.

<sup>113</sup> Ibid., p200.

<sup>114</sup> V. Dedoussis, 'Simply a Question of Cultural Barriers?: The Search for New Perspectives in the Transfer of Japanese Management Practices', Journal of Management Studies – Special Issue, (1995), 32, 6, pp731-745.

<sup>115</sup> Ibid., p743, 736.

<sup>116</sup> Ibid., pp742-745

<sup>117</sup> See, for example, Organisation for Economic Co-operation and Development (OECD), Labour Market Flexibility and Work Organisation – Conference of Experts, 17-19/9/90, 'Synthesis of Responses of National Administrations to OECD request for information', Directorate of Social Affairs, Manpower and Education, OECD, Paris, 1990. This survey noted massive variety in the modernisation experience between countries. It also noted that, while workers may be more positive about some aspects of modernisation, this will not be sustained unless greater rewards and job security were forthcoming. (OECD, Labour Market Flexibility, 'Synthesis Report' by J. Rojot, pp26-30.)

<sup>118</sup> See, for example, the cross-sectoral study of B. Wilkinson, J. Norris and M. Munday, 'The Iron Fist in the Velvet Glove: Management and Organisation in Japanese Manufacturing Transplants in Wales', Journal of Management Studies – Special Issue, (1995), 32, 6, pp819-830.

In summary, this section has demonstrated the wide range of views regarding the existence, processes and outcomes of modernisation, within and across a number of country and sectoral contexts. Comprehensive modernisation may deliver much better results for the firm compared to traditional and partial modernisation strategies. However, many of these studies have seriously questioned the intent of employers to embark on wholesale change.

The main reasons for questioning how far firms will modernise and what effects would be forthcoming related to the context and to the implicit assumptions about the effects of modernisation on the attitudes and behaviour of workers and unions. It is more probable that the situation has simply become more difficult for unions and that workers' 'us and them' attitudes, while muted, still remain. In this regard, a principal theme which emerged was that, rather than allegiance, worker control may remain as a constant issue within the firm. The next section delves more deeply into the theoretical roots of this control debate and its relation to this and other empirical studies.

#### **1.4 LABOUR PROCESS THEORY AND THE MODERNISATION PROCESS**

Labour process theory most clearly challenges the implications of an optimistic view of modernisation. Labour control, skill degradation and inherent conflict stand out as key themes within many labour process writings. Early attempts to describe the processes involved in factory life characterised control, skill and conflict in a relatively simple way<sup>119</sup>.

Over time, institutionalists and sociologists improved on this approach in the light of empirical evidence which suggested the emergence of more nuanced managerial strategies and work systems<sup>120</sup>. This section briefly traces these theoretical

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<sup>119</sup> H. Braverman, Labour and Monopoly Capital, (New York, 1974)

<sup>120</sup> For example, see– A. Friedman, Industry and Labour: Class Structure at Work and Monopoly Capitalism, (London, 1977) and R. Edwards, Contested Terrain, (London , 1979) and Burawoy, Production Politics.

developments. It finishes with a description of how the labour process framework might be improved by taking better account of the issues raised by recent empirical critiques of the modernisation process.

### Traditional Labour Process Theory:

The labour process debate is about the implications of the separation of the ownership and control of the means of production<sup>121</sup>. Potential labour power becomes real labour power, and thus surplus value occurs, due to mechanisms of managerial control such as the separation of conception from workers' duties. Moreover, these mechanisms conceal the means through which more is extracted from workers than what they are paid.

The centrality of skills and control issues to labour process analysis were solidified by the work of Braverman<sup>122</sup>. His view was that there was an inevitable and monotonic process of deskilling underway. The logic of the capitalist labour process was, for him, encapsulated in a trend towards the greater separation of conception and execution skills. Management's control of labour power was thus to be found in the dominance and continuation of a Taylorist division of tasks. The eventual end to this process would only be brought about by worker resistance in the form of class action<sup>123</sup>.

While skill and control issues continue to stay at the centre of the labour process debate, the arguments used by Braverman have been strongly criticised<sup>124</sup>. For instance, a much greater range of skill outcomes and ways of seeing skill (e.g. as a tacit and subjective issue) have emerged compared to Braverman's craft ideal and his view of its monotonic decline<sup>125</sup>. Relatedly, Braverman's view of management was a

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<sup>121</sup> See, Littler, Labour Process, Part 1, and Labour Process Theory, eds. D. Knights and H. Willmott (London, 1989), pp2-7.

<sup>122</sup> Braverman, Monopoly Capital.

<sup>123</sup> See P. Thompson, The Nature of Work, (London, 2nd ed. 1989), Ch. 3 and Labour Process Theory, eds. Knights and Willmott, pp7-10.

<sup>124</sup> See, Labour Process Theory, eds Knights and Willmott, pp10-19 .

<sup>125</sup> See T. Manwaring and S. Wood, 'The Ghost in the Labour Process', in Job Redesign, eds. D. Knights et al, (London, 1985), pp171-193.

relatively one-dimensional, universal Taylorist model<sup>126</sup>. Thirdly, outside of eventual class action as a response to economic exploitation, resistance and subjectivity received insufficient attention<sup>127</sup>.

Fourthly, Braverman's vision of the labour process has been criticised as being a one-sided approach to an analysis of the division of labour<sup>128</sup>. For instance, the design of jobs will also be determined by product market and competition factors. These are decided outside of the factory floor. This, as is noted below, is not a totally fair criticism of all studies which base their research in the labour process. However, the consideration of influences outside of the point of production leads to a more realistic picture of the diversity of production process and skill possibilities than that suggested by Braverman<sup>129</sup>.

Many of the skills and management control criticisms of Braverman have been improved upon in the works of Edwards<sup>130</sup>, Friedman<sup>131</sup> and Coriat<sup>132</sup>. These authors do not base their theories on a monotonic process of deskilling. Their focus is more upon the development of less onerous management methods due to the visible, and thus dysfunctional, nature of Taylorism. For Edwards this represents a movement from coercive to bureaucratic control and for Friedman the gradual evolution of some 'responsible autonomy' for workers. Coriat's vision of an evolution from imposed to stimulated to negotiated control echoes a similar line of thinking.

These strategies represent a new realisation by management that, in certain circumstances, profitability may require a different type of mechanism for ensuring labour power. For example, the processes and 'carrots' of bureaucracy and ILMs may generate enough self-interest to make workers consent to working more efficiently, harder or differently. Structures and rewards such as teamwork, reduced supervision

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<sup>126</sup> See, Friedman, Industry and Labour ; Edwards, Contested Terrain.

<sup>127</sup> Well discussed by Burawoy, Production Politics, Ch. 1.

<sup>128</sup> J. Kelly, Scientific Management, Job Redesign and Work Performance, (London, 1982).

<sup>129</sup> As suggested by *ibid.* and Thompson, Work, p218.

<sup>130</sup> Edwards, Contested Terrain.

<sup>131</sup> Friedman, Industry and Labour.

<sup>132</sup> B. Coriat, 'Du Fordisme au Post-Fordisme' in , Mutations Industrielles, Une Decennie de Modernisation Quels Modeles Socio-Productifs, ed B. Coriat (Paris, 1991).

and career opportunity may promote the 'community' of the firm and thus allow the greater co-ordination of the interests of capital and labour. Yet none of these authors shy from a belief that control and conflict have disappeared, they have simply taken on a new form. The stages they suggest represent 'frontiers' or 'terrains' of temporary stability - akin to a truce. A greater amount of voluntarism arises but this is still within a context based on fundamental domination and exploitation<sup>133</sup>.

These arguments are a considerable improvement on earlier labour process theory. However, factors outside of the point of production which affect the form of labour use still receive insufficient attention. Secondly, inherent antagonism between capital and labour remains central as a matter of faith, rather than as a testable proposition. Burawoy's concept of the 'politics of production' represents a more adequate framework for considering control and the variety of influences on the labour process<sup>134</sup>.

#### The 'Politics of Production':

To Burawoy, the context of production has an economic, political and ideological dimension. The political is evident in the form of social relations being promoted and the ideology relates to subjective responses to the (economic) production relations which have been introduced. Uncertainty over the generation of surplus value and the personal process by which this occurs make the point of production an important and unique locus to consider.

Like the authors considered above, Burawoy doesn't see new management strategies as any less coercive than simpler forms. However, his framework allows for a broader consideration of the influences on managerial strategy. The labour process is a key, but only one, factor within Burawoy's 'politics of production'. Factory regimes will also be influenced by state, company ownership and product market

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<sup>133</sup> See, for critiques of these contributions, Thompson, Work, Chs. 5-6 and Managing the Labour Process, eds D. Knights and H. Willmott, (London, 1986) pp4-5, and Lincoln and Kallenburg, Culture, pp8-10.

<sup>134</sup> Burawoy, Production Politics.

considerations. Thus the means by which capital and labour's interests are internally coordinated are accordingly more open.

The apparent contradictions of a crude view of control are also more explicitly allowed for within Burawoy's consideration of worker subjectivity. For example, a recognition that complete control cannot exist opens up 'space' for workers to find relative satisfactions in their work. These may relieve the boredom or oppression of work. More specifically, workers' 'games' (for Burawoy they came in the form of output bonus quota behaviour) directly involve workers in the process by which surplus values' creation is mystified - workers don't just make products and profits they also generate their own consent to this process through their 'games'<sup>135</sup>.

This ambiguous but subjective view of the labour process is central to Burawoy's schema<sup>136</sup>. For him the labour process should be seen in a dynamic way, as social relations between workers in production. Structural explanations offer a useful, but only partial, perspective on how subjective effects such as control or consent are manufactured in daily workplace routines.

Consequently, some of the 'games' which may evolve on the factory floor of a modernising firm may also represent resistance to the nature of expectations put on workers. Rather than being based on inherent conflict or the ultimate division of labour, class relations will be created and recreated in particular circumstances. Consent, control and conflict may co-exist quite comfortably in this context.

In summary, Burawoy's framework suggests that control will emanate from relations in production, through the policies of the factory regime, from the state and from international market forces. It also makes a clear distinction between a company's ultimate objective (profit) and the organisational means chosen to achieve this. However, while many company decisions will not be made with labour process or control outcomes in mind, many will often impinge on the labour process.

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<sup>135</sup>Ibid., p11 and p39.

### Improving the Model – The ‘Politics of Modernisation’:

Nevertheless, Burawoy’s framework has a number of weaknesses. For example, the role of the state and external influences are still left in a relatively one dimensional form<sup>137</sup>. Perhaps this is the reason Burawoy also succumbs to a somewhat deterministic set of models for the evolution of factory regimes. The ultimate of these (‘hegemonic despotism’) is where control once again becomes explicit due to more advanced forms of globalisation.

Within the realistic bounds of a research project there are ways in which Burawoy’s schema could be enhanced. For example, the consideration of control could be strengthened by the use of more detailed models of power, such as that by Lukes<sup>138</sup>. Control then, like power, has three dimensions. It can be explicit like in a stylised Taylorist/Fordist regime, the use of the police or via strict legislative controls. Secondly, control can be more diffuse such as through a set of general ‘rules of the game’ for industrial relations.

Recent modernisation strategies could be seen as a third and more subtle form of control – one which gives more depth to Burawoy’s concept of the ideology of production. At this level, control involves the ability to influence the frame of reference agents use for seeing their situation. This is a key point which emerges from the critical studies noted in section 1.3. A shift in a company's labour use policies towards this more subtle type of control may affect subjectivity in new and unpredictable ways.

Accordingly, what might appear to be instances of resistance (consent or allegiance) could be more fully explored by applying these concepts within studies of modernisation. In this regard, the Burawoy schema has also been criticised as being too weak on resistance<sup>139</sup>. The consent ‘game’ he refers to (bonus ‘making-out’) may be

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<sup>136</sup> Ibid., Ch. 1. Also see, Knights and Willmott, Labour Process Theory, pp16-18 for a summary.

<sup>137</sup> See Knights and Willmott, Labour Process Theory, p18.

<sup>138</sup> S. Lukes, Power - a Radical View, (London, 1977)

<sup>139</sup> See, for example, Skill and Consent – Contemporary Studies in the Labour Process, eds. A. Sturdy, D. Knights and H. Willmott, (London, 1992), p6; D. Knights, ‘Subjectivity, Power and the Labour Process’, in Labour Process Theory, eds. Knights and Willmott, pp297-335; and Resistance and Power

more strongly based on personal income maximisation than as a means of resisting feelings of control. On the other hand, the commitment that Lincoln and Kallenberg<sup>140</sup> claim to observe may not be such a strong behavioural reaction when seen through such a model.

In summary, as with the critical studies reviewed earlier, many of these theoretical contributions refute the idea that the 'glue' that makes workplaces more efficient can be allegiance. However, while the 'politics of production' allows for a spectrum of attitudinal responses it could be improved upon by a more detailed conceptualisation of control. This would more adequately reflect the subtle processes that have been observed within modernised factories<sup>141</sup>.

The empirical studies reviewed earlier also alert us to a second area in which theory must tread carefully. The international, national and local contexts surrounding any modernisation experiment appear very important. However, analyses must carefully assess the significance of the various contextual factors in such a way that they are neither trivialised nor used as the basis for a broad and generalised political discourse.

Finally, like control, resistance is a theme which requires further analysis. Burawoy's study limits and confuses this issue. Yet it is an important theme to explore as critical studies of modernisation have noted that resistance is more difficult due to modernisation. With an increasingly encompassing factory regime, a key question therefore is - are unions becoming the 'them' or are they adjusting their strategies and strengthening their position. The next section considers these issues.

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in *Organisations*, eds. J. Jermier, D. Knights and W. Norn (London, 1993) pp1-11.

<sup>140</sup> Lincoln and Kallenberg, *Culture*, Ch. 9.

<sup>141</sup> Section 1.3 of this chapter.

## 1.5 THE CHALLENGE OF MODERNISATION FOR WORKER REPRESENTATION

The optimistic modernisation literature is littered with anecdotal evidence and descriptions of how unions have and must develop co-operative identities.<sup>142</sup> Yet there appears to be a variety of conditions that need to be met before unions can safely take on a co-operative approach and remain effective and representative. The unitary message and persuasive policies of the modernising firm may compromise unions' independent role as both factory representatives and political actors.

Many unionists have also questioned employer intent and the modernisation process<sup>143</sup>. The concerns they raise include work stress, the nature of involvement, the role of training and the Kaizen process but also broader implications for union collectivism. Consequently, this section looks at how unions might respond to modernisation. It also proposes a model of union identity for use within this thesis.

### Modernisation – Constraints and Opportunities for Unions:

Unions everywhere have been under considerable pressure during the 1980s and 1990s. There are now many studies of reductions in union militancy and coverage, in and across Western democracies<sup>144</sup>. Most studies have concentrated on structural explanations of union decline. However, also stressed are more subjective aspects such as changes in the political perspectives and workplace priorities of actual and potential union members<sup>145</sup>.

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<sup>142</sup> See, for examples, Piore, 'Unions..Reorientation' and Kochan and Osterman, Mutual Gains, Ch. 6.

<sup>143</sup> US studies include, M. Parker, Inside the Circle: A Union Guide to QWL, (Boston, 1985); M. Parker and J. Slaughter, Choosing Sides: Unions and the Team Concept, (Boston, 1988) and J. Black and P. Ackers, 'Between Adversarial Relations and Incorporation: A Study of the "Joint" Process in an American Auto-Components Plant', in Global Japanization, eds. Elgar and Smith, pp297-326.

<sup>144</sup> See; E. Kane and D. Marsden, 'The future of trade unionism in industrialized market economies; J. Visser, 'Trade unionism in Western Europe: Present situation and prospects'; and T. Kochan, 'The future of worker representation: An American perspective' - all in Labour and Society, (1988), 13(2). See also, The State of the Unions, eds. G. Strauss, D. Gallagher, J. Fiorite (Madison, 1993) and, The Future of Labour Movements, ed. M. Regini (London, 1992).

<sup>145</sup> As noted in,, R. Hyman, 'Trade Unions and the Disaggregation of the Working Class', in Future

Most recently, growing individualism and the effect of new modernisation strategies on worker allegiance have received greatest emphasis as influences on the prospects of unions<sup>146</sup>. Some disagreement remains as to whether many of these challenges are new<sup>147</sup>. However, there appears to be general agreement that unions, as they are now configured, are facing a serious challenge.

This is particularly so as the prospect of greater participation, training and stability may be liked by workers. Yet many of these workplace changes fall outside of the traditional interests of most unions. Moreover, if workers are encouraged to focus their attention more on their specific workplace, broader political considerations and other labour market options may seem less relevant to them. In consequence, both unions' political objectives and workplace relevance may be called into question.

Accordingly, some writers suggest the focus of unions should become firm specific and service orientated<sup>148</sup>. Others believe that unions should take on a reconstituted social role, possibly fusing with other social movements<sup>149</sup>. Still others see a mix of strategies, along the lines of Hyman's model of 'business unionism with a social conscience'<sup>150</sup>. The greatest difference in these writings is, however, over whether unions should be moderate or militant.

The degree to which unions can take on moderate identities, and still survive as independent representative bodies, strongly depends on the nature of the facilitating environment. However, in less favourable economic conditions unions start in an even weaker position than the past and are likely to stand less chance of gaining from a more moderate approach, unless it is assumed that employers have begun to be pro-union.

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Labour, ed. Regini, pp 151-167.

<sup>146</sup> For a critique of these issues see, New Workplace and Unionism, eds. Ackers, et al. Typologies of union responses can be found in, Guest, 'Human Resource Management' and R. Hyman, 'Changing Trade Union Identities and Strategies', in New Frontiers in European Industrial Relations, eds. R. Hyman and A. Ferner (London, 1994).

<sup>147</sup> Qualified acceptance that some change is occurring is well put by, R. Hyman, 'Unions and the Working Class', in Future Labour, ed. Regini, and J. Kelly, 'Union Militancy and Social Partnership', in New Workplace and Unionism, eds. Ackers et al.

<sup>148</sup> See, P. Bassett, Strike Free: New Industrial Relations in Britain, (London, 1987) and M. Piore, 'Unions.. Reorientation'.

<sup>149</sup> See, Bacon and Storey, 'Individualism and Collectivism'.

Moreover, even if employers take a pro-union stance, unions' survival as independent, representative bodies would require that workers have allegiance to both the union and the modernised employer. Yet the empirical evidence does not support this. As noted earlier, even in Japan, where unions do not unduly threaten the firms' goals, dual allegiance is considered to be very low<sup>151</sup>.

If then unions become mere service providers or just parts of a broader social movement, this would mean a major change to unions as most appreciate them. On the other hand, some suggest that unions should emulate the strategies of German and Swedish unions (as negotiators of labour process change), perhaps taking their role even further into areas such as workplace training<sup>152</sup>. However, despite the arguable benefits of workplace engagement in Germany and Sweden, few countries have, or are likely to develop, such a structure and history of workplace relations.

Furthermore, even in Germany and Sweden union engagement with management at the workplace may still lead to contradictions between firm based issues and a role of unions as independent representatives<sup>153</sup>. Current thought is that the relative success of these models is based on a variety of features beyond just an active workplace union role<sup>154</sup>. They also require macro union co-ordination and the independent, positive recognition of unions in law<sup>155</sup>.

As discussed in Chapter 2, the Brazilian industrial relations environment does not exhibit such features. Constraining rules, high levels of managerial prerogative, a divided labour movement and low levels of education and pay distinguish the Brazilian context. Moreover, as noted in Chapter 3, these features may take on even more distinct

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<sup>150</sup> In R. Hyman, 'European Unions: towards 2000', Work, Employment and Society, (1991), 5,4.

<sup>151</sup> On Japanese unions' engaged but not so conflictual role see Lincoln and Kallenberg, Culture, pp229-232.

<sup>152</sup> See W. Streeck, 'Training and the New Industrial Relations: A Strategic Role for Unions?', in Future Labour, ed. Regini.

<sup>153</sup> See H. Kern and C. Sabel, 'Trade Unions and decentralized production: a Sketch of Strategic Problems in the German Labour Movement', in Future Labour, ed. Regini.

<sup>154</sup> A point well made by M. Terry, 'Workplace Unionism: Redefining Structures and Objectives', in New Frontiers, eds. Hyman and Ferner.

<sup>155</sup> See on these points, C. Crouch, 'The Fate of Articulated Industrial Relations Systems: a stock taking after the 'Neo-liberal' Decade', in Future Labour, ed. Regini and L. Turner, Democracy at

forms due to the local context and TNC factors. The last part of this section presents a model of union identity which allows this thesis to evaluate the responses of the case study unions to the complex web of workplace and political pressures evident within this context.

### Research Problematics and the Identity Model:

For traditional issues such as wages and benefits, the consideration of a union's responses to a change in an employer's policies may seem quite straightforward. However, many aspects of modernisation may act to accentuate existing problematic aspects of unions' relation to, and strategies for, workers<sup>156</sup>. For instance, to what extent do worker responses reflect their unconstrained preferences as opposed to the political ideology of their employer or union?

More specifically, with the modernising employer increasingly trying to persuade workers to go 'beyond (the wage-effort) contract' and take a firm specific but individualist attitude, how far should unions try to influence, as opposed to follow, the opinions of workers and still be considered a representative and independent voice of workers? On the other hand, even if a union has been able to influence workplace conditions, who has this benefited? That is, how collective and representative are they as an organisation?

As the terms 'moderate' and 'militant' are not detailed enough in themselves to cope with these issues, in this thesis unionism is analysed using a dynamic concept of identity. The model employed is one which considers the nature of interests served by the union, its level of democracy and the union agenda<sup>157</sup>. Union identity is defined as the relationship of these factors to how a union is able to exert power/control within its particular environment. The elements of this model (see Figure 1.1) are discussed below.

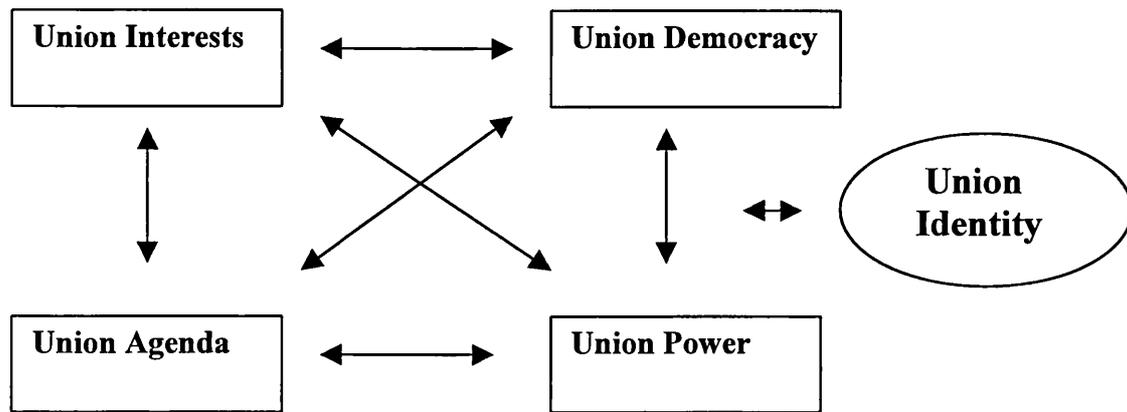
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Work: Changing World Markets and the future of Labor Unions, (Cornell, 1991).

<sup>156</sup> On these ever present union debates see (eg union democracy, political action) see, State of Unions, eds. Strauss et al.

<sup>157</sup> As developed by, Hyman, 'Union Identities'.

**Figure 1.1: The Identity Model**



Source: Hyman, 'Union Identities', p 120

**i) Union Interests:**

A union's interests relate to whom and in what types of issues it is interested. Challenges common to most unions are whether they can expand their interest base and still be representative. Unions may have more difficulty (than in the past) resolving their interests in an environment where internal factory conditions take on relatively greater importance (for workers) than factors external to the firm.

**ii) Union Agenda:**

A union's agenda is evident not only from its formal policies and constitution but also from the priorities implicit within its day-to-day strategies. In this regard, quantitative demands fit more easily within unions' traditional orientation. On the other hand, qualitative demands, such as those raised by modernisation, are more challenging of managerial authority

In the face of modernising employers, a union's agenda could (in a stylised sense) become either, 1) more collaborative and narrow in scope, or 2) actively questioning of employers and broader in focus. Modernisation optimists would suggest that the first option is both the more effective form of representation and the most likely to evolve if unions are to survive. An alternative to this would be for

unions to become more like a social movement

### iii) Union Democracy:

The third factor concerns the problematic issue of union democracy. To go fully into the debates about union democracy is beyond the scope of this thesis. However, a principal question of these debates is whether an 'iron law of oligarchy' (a conflict between union efficiency and democracy) is inevitable<sup>158</sup>. Conflicts of this type are said to be heightened by modernisation<sup>159</sup>.

The analysis of this thesis is based on the proposition that participation is the key issue behind democracy and that this will also determine a union's effectiveness<sup>160</sup>. The concept employed, participant representation, departs from an internal electoral model of democracy often derived from the 'iron law' proposition. This 'iron law', or goal displacement proposition, was based on three related arguments. These were that; the demands of organisational effectiveness would lead to divisions between leaders and the rank and file; this would be perpetuated by leaders increasing interest in remaining in power and; that an antagonism of interests would grow between a radical workforce and growing moderation by union leaders<sup>161</sup>.

The internal consistency and assumptions of these arguments have been seriously challenged in the literature<sup>162</sup>. Furthermore, the use of electoral models and an emphasis on internal institutional aspects of unions<sup>163</sup> neglects external factors<sup>164</sup>. Most

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<sup>158</sup> R. Michels, Political Parties, (New York, 1959, 1st ed. 1915).

<sup>159</sup> As noted by Kern and Sabel, 'Unions and Decentralised Production'

<sup>160</sup> As noted/used by W. Mangabeira, 'Union Politics and workplace militancy: a case study of Brazilian steelworkers in the 1980s', (1991), PhD Thesis, LSE, University of London, Ch 1.

<sup>161</sup> Ibid.

<sup>162</sup> See *ibid.* and P. Cook, 'Robert Michels Political Parties in Perspective', The Journal of Politics, (1971) 33; and S. Hill, Competition and Control at Work, (London, 1981). Cook criticises the concept for implicitly assuming the working class as a radical group and leaders as supporting the status quo. Hill criticises a necessary link being made between goal displacement and oligarchic tendencies.

<sup>163</sup> Such as is done by J. Edelstein and M. Warner, Comparative Union Democracy, (New Jersey, 1979); R. Martin, 'Union Democracy: An Explanatory Framework', Sociology, (1968) 2, 2 and I. Roxborough, Unions and Politics in Mexico – the case of the automobile industry, (Cambridge, 1984).

<sup>164</sup> As is argued by, E. Heery and P. Fosh, 'Introduction: whose union? Power and bureaucracy in the labour movement', in Trade Unions and their members: studies in union democracy and organization,

importantly, the implicit assumption that unions must solely follow workers' demands does not necessarily indicate that unions are representative<sup>165</sup>.

What does appear important is whether active collaboration exists between workers and the union. The process of participative representation will be a function of resource availability and local conditions. It is a socially constructed process wherein a representative union seeks workers' views, interprets their demands, proposes new themes, reports back to workers and pursues members' demands<sup>166</sup>.

Participant representation may be more difficult to achieve as modernisation proceeds. This is because modernisation may lead to 1) fewer workers being interested in the union, and/or 2) viewpoints of a union's role becoming more diverse or even diametrically opposed. This may or may not destabilise the union. It may or may not also lead to particular groups taking control of the union or others facing unfair obstacles to the challenging of this group (i.e. the 'iron law' debate). More fundamentally, modernisation could reduce the incentive for and effectiveness of mechanisms of participation and accountability.

#### iv) Union Power:

One possible power implication of this model is therefore that, as workplaces modernise unions will tend to become less powerful and influential at both the workplace and political level. On the other hand, optimists suggest that moderate unions which concentrate on workplace themes will be able to retain or regain their influence and power. This might also be the case if unions have little to do with workplace matters.

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eds. P. Fosh and E. Heery (1990), pp 1-28; and in respect to Mexico, K. Middlebrook, 'Union Democratization in the Mexican Auto Industry', *L.A.R.R.*, 24,2.

<sup>165</sup> Demonstrated in other Brazilian situations by Mangabeira, 'Union Politics', and J. Morais, 'New Unionism and Union Politics in Pernambuco (Brazil) in the late 1980s', (1992), PhD Thesis, LSE, University of London.

<sup>166</sup> Noted by Morais, 'New Unionism and Union Politics', Ch. 1.

In summary, this section has elaborated upon the implications of many recent empirical studies of management and workplace change. Modernisation will intensify the difficult position in which most unions already find themselves - at the workplace and in the political arena. Despite the optimism of many recent writers, it appears that few environments offer unions the conditions which allow them to resolve these conflicts and remain representative and effective.

The prospects of - a truly inclusive stance by employers to unions, a facilitative framework and dual allegiance to the employer and union - do not look very high, especially in countries such as Brazil. However, the process by which a union responds to this situation is full of ambiguities and constraints. The use of a model of union identity, one which uses an interactive and contextually explicit concept of worker-union relations, should allow this process to be most adequately described.

## **1.6 A METHODOLOGY FOR THE 'POLITICS OF MODERNISATION' IN BRAZIL**

How and why have work (especially labour processes) and industrial relations changed during the process of industrial modernisation in Brazil are the central questions of this thesis. More specifically, in what ways have the styles, structures and policies of firms changed and why? Secondly, how have work and attitudes to work changed? Thirdly, have workers' attitudes to their employer and their union been modified and why? Finally, in what ways have unions been able to act as conditioning influences on this process - have their identities changed and have they been effective?

Optimists suggest that a clear change in management style has or will emerge. Structures will be more open and flexible and if unions are to have a role they will need to not be in opposition to a company's policies. These policies and new production and employment concepts will recombine conception and execution skills and make work more satisfying. Most importantly, modernisation will lead to a strong psychological

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bond between the employee and employer, a degree of organisational attachment which offers many benefits to the firm, its employees and their representatives.

On the other hand, sceptics refute the processes inherent within an optimistic hypothesis. They seriously question employer intent, the degree to which work will change and the necessary wisdom of a change in union strategy towards co-operation. Most fundamentally, their work challenges the view that control has been replaced by allegiance as the primary attitudinal link between workers and employers. Examples of partial modernisation clearly illustrate these criticisms of the optimistic hypothesis. However, even in successful comprehensively modernising firms, the form that modernisation takes and its effects on subjectivity remain empirical issues.

The methodology of this thesis is guided by a more sceptical theoretical viewpoint. However, this study hopes to add greater insights to its analysis of the 'politics of modernisation'. First, as highlighted by the literature, it is not only skills, tasks and conditions which are important but also the subjective nature of employee relations and the precise basis of management policy. Secondly, organised resistance from outside the factory is dealt with in great detail through the use of a dynamic model of union identity.

Thirdly, this study tries to sensitively consider how aspects of the international, national and local contexts may affect modernisation outcomes. Fourthly, due to the debates in the literature about the degree and consequences of factory level change, the primary division of data in this thesis is between partial and comprehensively modernising firms. Few studies of Brazil have attempted to apply such a methodology and even fewer have integrated detailed data on workers and their unions. Moreover, this is the first study of its type of the white goods industry.

As elaborated in Chapter 2, the case study period (1985-94) appears to be unique as it marked the start of more open economic policies and political processes in Brazil. Many employers have embarked on a process of modernisation and workplace conditions have become more open and legitimately contestable issues. However, the

development process remains uncertain, many aspects of the corporatist industrial relations model remain, employers have been used to unfettered managerial prerogative and the union movement remains fragile and divided. This context is reflected within the recent Brazilian literature about workers, unions and factory regimes<sup>167</sup>.

Accordingly, the hypotheses of this thesis with respect to the 'politics of modernisation' in Brazilian industry are:

1. Modernisation in Brazil will show variety depending on the market, ownership and locality of the firm. Also, changes in Brazilian management style, structures and policies will be limited in scope and based on a skewed participatory orientation.
2. Changes to work will be far more limited than suggested by an optimistic interpretation of modernisation. Some workers may take on new tasks, even new conceptual skills, but there will be strong limits to how much work changes.
3. Workers are likely to be subjectively influenced by the 'politics of modernisation' and may even actively contribute to their own consent to it. However, while it is uncertain what effect modernisation may have on worker-union relations, the degree of worker attachment to the employer will be limited.
4. Despite employers' new interest in modernisation and human resources, unions will continue to be kept out of the picture. Unions' identities will be under intense pressure, if they wish to be both representative and effective.

The data used to investigate these issues was collected through management interviews<sup>168</sup> and questionnaires, intensive workplace observation and discussions, union interviews and archives, detailed interviews with a sample of 93 workers from

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<sup>167</sup> See Chapter 2, section 2.4.

<sup>168</sup> Both with and, more substantially, independently of the project -B. Neto et al, 'A Indústria de eletrodomésticos de linha branca: tendências internacionais e situação no Brasil', (1992) Instituto de Economia, University of Campinas, Brazil.

four white goods firms<sup>169</sup> and from complementary discussions<sup>170</sup>. A vast number of secondary sources of data were also accessed. These included the IGBE, FGV, ABINEE, SENAI and the BNDES<sup>171</sup>. A newspaper and periodical archive on the industry, companies and unions was also compiled and research staff at CEBRAP, DESEP and DIEESE were regularly consulted<sup>172</sup>. Material gained from these sources complemented the many articles, books and theses collected.

The primary data gathered in the course of this research is analysed in Parts B and C of this thesis. Part B (Chapters 4 & 5) deals with changes to the factories and to work/labour processes. Part C (Chapters 6 & 7) deals with industrial relations issues. The next two chapters (Chapters 2 & 3) of this part of the thesis describe the context against which this case study material is set.

Chapter 3 deals with two important sets of factors – the case study industry and the local environments for each case study. Recent studies and critical theory have suggested that the issues of TNC involvement and local custom and practice may affect outcomes at the factory level. It is thus important to provide an overview of these factors for the case studies.

Chapter 2 summarises key aspects of Brazilian industrial relations which have and still shape workers' conditions and unions' abilities to act. The effects of recent political and economic changes on workers and the labour movement are also discussed. Most importantly, the chapter summarises key findings from the Brazilian literature on modernisation and sets up the more specific Brazilian modernisation themes to be analysed in the empirical chapters.

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<sup>169</sup> The original worker interview schedule is enclosed as Appendix D.

<sup>170</sup> See Bibliography, Part 4.

<sup>171</sup> These acronyms are defined in the 'List of Abbreviations' at the start of this thesis.

<sup>172</sup> Ibid.

## **CHAPTER 2:**

### **MODERNISATION IN THE BRAZILIAN CONTEXT**

#### **2.1 INTRODUCTION**

The first aim of this chapter is to specify those aspects of industrial relations and political economy which define the Brazilian context for this study. With this background in mind, the second aim is to provide an overview of modernisation developments in the recent period. This allows the implications of modernisation for work/labour processes and industrial relations in Brazil to be set out. These themes provide a basis for the analysis of the case study factories, workers and unions in Chapters 4-7.

Optimistic propositions about industrial modernisation have achieved greater prominence in Brazil due to the transition the country has undergone since 1985. Formally, democracy has been introduced, more open economic policies are being pursued and some changes have been made to the corporatist and exclusionary system of industrial relations. A more open and consensual form is being promoted for politics in general and for workplace practices and industrial relations in particular.

However, in contrast to the optimistic modernisation hypothesis, this chapter's review of the Brazilian context argues as follows. First, the continuation of a number of historical features of Brazilian industrial relations and political economy suggest that an optimistic outcome is unlikely at factory level. Yet, theoretically at least, some factors (e.g. an already high level of flexibility in the allocation of labour) may make it easier for firms to partially modernise and recent political and institutional liberalisation may assist this process.

Secondly, despite these caveats, there is clear evidence that the number of comprehensive modernisation experiments is growing. However, present empirical work leaves it uncertain whether these changes are having effects on work, workers' attitudes and unionism that conform to an optimistic vision. Thirdly, these observations

confirm Chapter 1's point that the best way to investigate the form and effects of modernisation is to compare the experiences of partially and comprehensively modernised firms.

This chapter has three substantive sections. Section 2.2 briefly reviews historical themes in Brazilian political economy which continue to influence industrial relations and working conditions in the current period. These relate to the normative, institutional role of the state, the constraining effect of political processes on the labour movement and the high degree of managerial prerogative that employers have over the use of labour.

Section 2.3 outlines the case study context for the years 1980 to 1994. The first subsection (2.3.1) summarises economic and political conditions and their impact on industrial labour. Subsection 2.3.2 underlines the uncertain effect of greater political and industrial relations liberalisation on the Brazilian union movement.

It is against this background that section 2.4 surveys and evaluates studies of modernisation across Brazilian industry during the case study period. Subsection 2.4.1 notes that by the early 1990s the rate and depth of modernisation examples grew to a point whereby firm level performance improvements could also be seen. However, comprehensive examples of change were mainly isolated to key sectors and most prevalent in large and TNC dominated firms.

Subsection 2.4.2 summarises the main themes to emerge for work/labour processes and industrial relations as a result of these modernisation developments. These themes are similar to those identified in the international literature in Chapter 1. However, their form is often more peculiar to the Brazil context. Section 2.5 summarises and concludes the chapter.

## 2.2 BRAZILIAN INDUSTRIAL RELATIONS: 1930 - 1980s

The empirical studies discussed in Chapter 1 confirmed that context will affect what modernisation looks like within the firm. An important part of this context is the industrial relations setting. In Brazil, as in many other developing countries, the industrial relations environment has traditionally been a very tough and constraining one for workers and unions.

This section briefly reviews the rules, institutions and the ways in which Brazilian unions and workers have been treated in politics and the workplace in the past. Many aspects of this history have endured into the case study period. Explicit and paternal forms of control and a real lack of trust continue to pervade Brazilian industrial relations.

### 2.2.1 The Formative Role of the State

The coup which installed Gétúlio Vargas in power in 1930 marked the beginning of a new era in Brazilian history. A development model was promoted which gave a greater role to industrial interests but which put the leadership and organisation of economic and social issues much more strongly with the state<sup>1</sup>. The idea of a more autonomous development model took some time to clearly evolve into practice. However, a new set of rules and structures for organising and controlling workers and their organisations were quick to emerge<sup>2</sup>.

The application of this corporatist vision never totally fulfilled its theoretical foundations. For example, regulations applying to unions (*sindicatos*) were always applied more strictly than were those applying to employers. Secondly, between 1930 and the mid-1980s the model was applied to varying degrees by populist, dictatorial and more democratic regimes. However, a most important fact is the survival of the

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<sup>1</sup> See, for example, G. Gomes, The Roots of State Intervention in the Brazilian Economy, (London, 1986).

<sup>2</sup> Well described in, K. Erickson, The Brazilian Corporative State and Working Class Politics, (Berkeley, 1977).

model over this whole period<sup>3</sup>. The pillars upon which this model rested were - the regulatory role of the Ministry of Labour, the Labour Code and the related social welfare and labour court systems.

By 1939 the Ministry of Labour had the power to apply very encompassing conditions on industrial conduct. For instance, they had the right to - supervise union finances, oversee elections, veto candidates, demit union officers and appoint alternative union officials (*interventors*). Unions had to register with the Ministry and, by specifying union constitutions and functions (e.g. a non-workplace role), it appears that the state was trying to determine unions' agendas.

Regulations, such as those ensuring a monopoly of representation (*unicidade sindical*), reinforced these controls. The *unicidade sindical* law defined a union's industrial category by the major activity of a firm. A union's ambit was defined as one or a number of local councils (*municípios*). Once these issues were decided, the union had a monopoly of representation for all workers within their category in that area. Beyond the local union, provision was made for category level federations (3 or more local unions in a category in a state) and confederations of these (5 or more) federations at a national level. This permitted the vertical co-ordination of union activity for the industrial categories recognised by the state. However, these provisions also meant that unions were detached from their base and no horizontal co-ordination across union groupings was allowed<sup>4</sup>.

What was rapidly to become the principal area of union finances, the IS (*imposto sindical*; 1940), was also used to support this corporatist framework. According to this law, one day's pay per year is deducted from every worker regardless of whether they are a paid up subscriber (*sócio*) of the union or not. In exchange for this, all workers in the category are entitled to the benefits negotiated by the union and

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<sup>3</sup> The features of the model described below are not disputed in the literature. See Erickson, Brazilian Corporative State, Ch 3; K. Mericle, 'Conflict Resolution in the Brazilian Industrial Relations System', (1974), Phd Thesis, University of Wisconsin, and M. Alves, 'Trade Unions in Brazil: A Search for Autonomy and Organization' in Labour Autonomy and the State in Latin America, ed. E. Epstein (Boston, 1989), pp. 39-45.

<sup>4</sup> Thus, when the term (union) 'central' is used in this thesis this refers not to a confederation in the commonly known sense of the word but to one of a number of union factions who try to establish a co-

from the work conditions specified by the Labour Code (*Consolidação das Leis do Trabalho - CLT*). However, paid up *sócios* also have access to a more extensive range of medical and social benefits.

While there therefore may have been some incentive for a worker to be a paid up *sócio*, the law tried to make this a social welfare relationship only. This had a powerful influence on worker-union relations. That is, a union had a much greater chance of flourishing as an entity if it conformed to this social welfare model, if its local labour market category was large (re IS revenues) and if *sócio* members, particularly active ones, were kept to a minimum.

The Labour Code of 1943 brought together the various regulations for direct employment related benefits, such as hours, minimum pay and leave, that had been passed up to that point. However, broader social benefits were being provided for by bipartite and tripartite arrangements. For example, by 1938 sector level social security schemes began to dominate (over earlier company level initiatives) and these developed strong links to the social welfare trade union model under construction<sup>5</sup>. The Government's ability to manage this situation was refined by the centralisation of all of these schemes in 1964-65.

A system of labour courts was also in place by the 1940s. Three levels of courts were established - local labour courts, regional labour courts and the superior labour court. Like the social security system, they also provided for tripartite representation and thus a role for 'acceptable' labour leaders. However, as with other aspects of the model there was a strong normative requirement that the labour courts play an active role in the prevention and mediation of conflict.

This overseeing and directive role of the courts can also be seen in the way strike legality has been managed<sup>6</sup>. In a few brief periods since 1930, when the strike option was fairly freely available, labour courts were still able to rule that a strike was

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ordinating structure for unions.

<sup>5</sup> On the history of the Brazilian social security system see, J. Malloy, The Politics of Social Security in Brazil, (Pittsburgh, 1979).

<sup>6</sup> See Alves, 'Trade Unions in Brazil' , p43-49.

illegal and thus worker benefits and tenure could not be guaranteed during the strike. It also meant that the court could effectively rule on the objectives of a strike before any action had occurred. During the military regime (1964-85), the right to strike was most strongly curtailed and the police were regularly used to quell industrial disturbances.

The decision on wage rises is also an important role of the labour courts. As with strikes, during the military period the courts were required to apply much more severe and centralised (wage) guidelines than in the past<sup>7</sup>. The floor upon which wage decisions were based was the minimum wage (*salário mínimo* - 1940).

The high growth rates achieved with the Import Substituting Industrialisation (ISI) policies of the Kubitschek presidency and the massive growth rates of the military period were undoubtedly related to non-wage factors. However, the military regime required the courts to apply a centralised wage adjustment based on inflation and productivity estimates which grossly underestimated their real average levels<sup>8</sup>. Thus the control of union action and wage levels were also factors which contributed to the 1968-1974 economic 'miracle'.

Finally, another important area in which the military regime used the corporatist model to its advantage related to job security<sup>9</sup>. The Labour Code in 1943 gave laid off workers with less than 10 years experience a payout of 1 month's salary for every year of service. Workers with 10 years experience or more had security of employment (or of salary receipt) unless a court decided the employee had wilfully defied their contract. This legal protection, plus the general tightening of the labour market during the 1950s-1960s, may have bolstered the labour market power of certain groups of workers and unions.

These arguments were used by the military regime to suggest that order and progress were under threat and that the job security regulations must be changed. In 1966 the regulation became one where 8% of the salary of each employee was to be paid, by both employers and workers, into an account. Workers would receive this sum

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<sup>7</sup> Ibid., pp47-49

<sup>8</sup> Ibid.

if they were dismissed without just cause or they could have it transferred to their next employer. Thus job security, as it had been known, was no longer a right.

One consequence of these changes to statutory job security was that unions were less able to find and retain factory level representatives. The other was a massive growth in labour turnover<sup>10</sup>. The present period has seen the continuation of very high levels of labour turnover<sup>11</sup>. This issue plus low wage levels and an uncertain institutional and regulatory framework continue to distinguish the Brazilian industrial relations setting.

### 2.2.2 Political Processes and the Labour Movement

With the discrediting of fascism worldwide, considerable social pressure emerged against the regime which had instigated the policies of the 'New State' (*Estado Novo*). Accordingly, administrations between 1945-51 began to take a more open approach to the economy and social issues<sup>12</sup>. Consequently, many of the labour movement factions to survive into the post-war period came to give greater support to a regime which at least offered them some 'voice'.

The populist Kubitschek regime (1951-61) took a more consistent and inclusive approach to development<sup>13</sup>. The political rhetoric was less radical and structures and development incentives helped to force rapid industrial growth. Patronage of key labour factions was used very cleverly and employer groups were brought more closely within the process of nation building. The Goulart regime (1961-64) took a more

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<sup>9</sup> Ibid.

<sup>10</sup> E. Silva, 'Remaking the Fordist Factory?: Industrial Relations in Brazil in the past and for the future', Conference Paper, (Paris, 1990), p22, quoting statistics from - W. Barelli, "O Fundo de Garantia e seu impacto no mercado de trabalho", paper to the 'Seminário de Economia e Planejamento and FUNDAP, São Paulo, 23-25/11/77, mimeo - suggests that turnover rates in the 1970s nearly doubled compared to the 1960s.

<sup>11</sup> See section 2.3.1 and Table 2.6 of this chapter.

<sup>12</sup> See, H. Spalding, 'Labour and Populism: Argentina and Brazil' in *Organized Labour in Latin America*, ed. H. Spalding (London, 1977), pp185-189, and M. Bordin, 'The Brazilian Industrial Relations System (1930-64): Unionism or Corporatism?', *Labour and Society*, (1986), 11, 1, pp126-30.

<sup>13</sup> A classic work on this period is M. Benevides, *O Governo Kubitschek: Desenvolvimento Econômico e Estabilidade Política*, (Rio de Janeiro, 1976).

radical populist approach<sup>14</sup>. However, together with growing economic uncertainty and social upheaval, the poor level of workplace organisation contributed to the fact that protests following the announcement of a military coup in 1964 were very muted and ineffectual<sup>15</sup>.

The military regime (1964-84) did not hesitate to enforce strict adherence to the Labour Code<sup>16</sup>. In addition to curbs on strikes and wages, a new round of union re-registrations was carried out and even deportations and killings were resorted to<sup>17</sup>. When a wave of worker protests broke out in the states of São Paulo and Minas Gerais in 1967-8, the state was quick to intervene<sup>18</sup>. This was a period when social welfare unionism was most dominant<sup>19</sup>. The year 1968 also marked the beginning of the economic 'miracle' (1968-74) when the economy grew at an average rate of around 10% pa<sup>20</sup>.

However, the mid-1970s witnessed the re-emergence of serious structural constraints on growth. Two interrelated events helped to make the late 1970s a new period of social activism also. First, official recognition that average real industrial wages had dropped by at least 34% led to a resurgence of protests against the regime<sup>21</sup>. Secondly, these protests found new strength in the fact that the military appeared to be considering a relaxation of its policies of social control<sup>22</sup>.

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<sup>14</sup> See M. Bandeira, O Governo João Goulart: As Lutas Sociais no Brasil, 1961-64, (Rio de Janeiro, 1976) and Spalding, 'Labour and Populism...', pp 189-196.

<sup>15</sup> See, Bordin, 'Brazilian Industrial Relations System', pp132-135, and Erickson, Brazilian Corporative State., Ch. 6.

<sup>16</sup> See W. Baer, The Brazilian Economy: Growth and Development, (3rd ed, New York, 1989) and P. Freire, Multinacionais e Trabalhadores no Brasil, (São Paulo, 3rd ed. 1980).

<sup>17</sup> See Erickson, Brazilian Corporative State, Ch. 8; A. Figueiredo, 'Intervenções Sindicais e o Novo Sindicalismo', Dados, (1978), 17, and Alves, 'Trade Unions in Brazil', p46.

<sup>18</sup> See A. Almeida and M. Lowy, 'Union Structure and labor organization in the recent history of Brazil', Latin American Perspectives, (1976), 8, 3 (1), pp100-101 and Erickson, Brazilian Corporative State, pp170-171.

<sup>19</sup> See, H. Martins, O Estado e a Burocratização do Sindicato no Brasil, (São Paulo, 1979) p184 and J. Moisés, 'Current Issues in the Labor Movement in Brazil', Latin American Perspectives, (1979), 23, 6 (4), p55.

<sup>20</sup> See, FGV, Conjuntura Econômica, for these years.

<sup>21</sup> Almeida and Lowy, 'Union Structure', p101, suggest 43% for the period while international figures noted 34% for the period 1973-4 alone.

<sup>22</sup> As noted by M. Keck, 'The New Unionism in the Brazilian Transition' in Democratising Brazil: problems of transition and consolidation, ed. A. Stepan (London, 1989) p252 and p266, the national security order was rescinded, some amnesties were granted and a limited form of two party system was to be established.

A new form of labour opposition, with less strong ties to state corporatism or the Communist Party, began to emerge in this period<sup>23</sup>. Starting from a base within the São Bernardo metal workers, a growing number of unionists actively started to promote workers' rights and workplace concerns. When this fledgling movement first turned to large-scale strikes (in the auto sector of the ABC region in 1978), the state and many employers were taken by surprise<sup>24</sup>. A new wave of disturbances by this union in 1979 saw strikes spread to other parts of the southeast and to other occupational categories. Yet when large-scale strikes reoccurred in 1980, the Government acted swiftly to quell them with arrests and repression.

These experiences had an important impact on the complexion of Brazilian unionism in the early 1980s. They signalled an identifiable 'new unionism' - one with a new relation to the 'rank and file' and one which was increasingly prepared to challenge the state. However, the union movement as a whole was still composed of many divisions and shades of activism<sup>25</sup>.

During the early 1980s these different currents became expressed within attempts to form a (still illegal) union confederation and by attitudes towards political representation. The tenure of old style unionists (*pelegos*), who still held to a state-based model of unionism, began to become less tenable. However, the battle for ascendancy intensified between radical reformers (*autênticos*) and those who wanted change but not at the expense of union unity (*unidade sindical*)<sup>26</sup>.

These labour movement developments also led to lively debate about what 'new unionism' meant for the future of worker representation. Some felt that a labour aristocracy thesis was supported by the fact that modern sector workers were less active

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<sup>23</sup> See on these developments, E. Sader, Quando novos personagens entraram em cena: experiências, falas e lutas dos trabalhadores da Grande São Paulo (1970-80), (Rio de Janeiro, 1988).

<sup>24</sup> The large-scale strikes of 1977-80, their basis and the role of 'new unionists' are well documented in, R. Antunes, A Rebelião do Trabalho. O Confronto Operário no ABC Paulista: As greves de 1987-80, (Campinas, 1992), J. Humphrey, Capitalist Control and Workers' Struggle in the Brazilian Auto Industry, (Princeton, 1982) and Alves, 'Trade Unions in Brazil.', (1989), pp49-56.

<sup>25</sup> See, Keck, 'New Unionism', pp273-5, and Alves, 'Trade Unions in Brazil', pp58-59.

<sup>26</sup> For example, in 1980 the *autênticos* helped to establish a new labour party (the PT) with 'Lula', the former head of the São Bernardo metal workers, as its president. Moreover, due to disputes between the 'centrals' in respect to the establishment of a unifying structure (CONCLAT), the *autênticos* went ahead with the establishment of their own 'central' (CUT) in 1983.

than other workers in attempting to challenge the authoritarian regime in the 1960s. The fact that metal unions spearheaded changes in the 1970s only meant that they still acted for a relatively privileged group of workers<sup>27</sup>.

However, a number of studies have strongly challenged this view. For example, some authors suggested that modern sector workers were involved in industrial disputes during the late 1960s-early 1970s but that this mainly took informal and unrecorded forms<sup>28</sup>. Secondly, a major study of the São Bernardo metals union and auto industry conditions between 1978-81 suggested that, while the industry was a key one in a concentrated industrial area, working conditions generally were such that the union acted as a 'voice' of all workers rather than just a representative of one group<sup>29</sup>.

Between the late 1970s and the early 1980s, therefore, labour aristocracy arguments concerning trade union representation appear to have had less of a basis in fact than in the past. However, the survival of the 'two edged sword' of labour code benefits and differences over political and industrial processes remain as ongoing sources of debate between rival labour movement factions. Factory modernisation developments may further complicate this situation for labour, one which has been based (subsection 2.2.3 below) on essentially Fordist systems of labour control.

### **2.2.3 Industrialisation, Labour Use and Workers' Attitudes**

A number of authors have argued that a particular form of Taylorism/Fordism accurately describes labour use in Brazil<sup>30</sup>. Late industrialisation, limited but protected mass markets and the strength of the state's role are said to distinguish the Brazilian context to that prevailing in the US and UK during their industrialisation process. Moreover, some have suggested that this picture exhibited a number of phases<sup>31</sup>.

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<sup>27</sup> A key exponent of this view was, M. Almeida - see 'O sindicato no Brasil: novos problemas, velhas estruturas', *Debate e Crítica*, (1975), 6, pp49-74 and 'Tendências Recentes da Negociação Coletiva no Brasil', *Dados*, (1981), 24, 2, pp161-90.

<sup>28</sup> See Almeida and Lowy, 'Union Structures', p108 and Alves, 'Trade Unions in Brazil', p51.

<sup>29</sup> Humphrey, *Capitalist Control* as noted by Keck, 'New Unionism', pp264-267.

<sup>30</sup> For example, E. Silva, *Refazendo a Fábrica Fordista*, (São Paulo, 1991) and R. Carvalho and H. Schmitz, 'Fordism is alive and well in Brazil', *IDS Bulletin*, (1989), 20, 4.

<sup>31</sup> See, M. Vargas, 'Gênese e Difusão do Taylorismo no Brasil', *Revista Ciências Sociais Hoje*, (São Paulo, 1985).

The first of these phases relates to the period when industrialisation remained limited and before the state took a clear stance to industrialisation (1930-1951). During this period, only Taylorist principles such as the importance of scientific methods and the need for discipline were promoted. For example, the creation of a public training institution (SENAI) in 1942 allowed employers to specify narrow occupational structures, solidify strict occupational hierarchies and train for punctuality, cleanliness and obedience<sup>32</sup>. Complementing this, the creation of a social welfare institution (SESI) in 1946 enabled employers to compete with unions and leftist political parties as a welfare provider and social educator.

A second phase emerged with the rapid ISI growth of the mid-1950s and the more open stance taken to the involvement of foreign capital. As a result, the methods of Taylorism and the structures of Fordism were more regularly applied. This subsection's brief consideration of labour use trends and workers' attitudes during this period provides important background for this study.

The rapid industrial expansion through the 1950s and early 1960s saw the more widespread use of the methods of Fordism/Taylorism<sup>33</sup>. The involvement of employers in the process was expanded by structures such as Kubitschek's sector based executive planning bodies. Also, the growing internationalisation of industry meant that worker socialisation and education were becoming more public in orientation. However, this process took time and still showed variation between sectors and regions.

For example, the metals industry case study of Lopes<sup>34</sup> demonstrated that before 1957 the firm used a loose job structure with workers entering under a 'general services' classification on a minimum wage but with potential bonuses. These conditions changed in 1957 with the introduction of a five-stage job classification based on length of service (but without bonuses). Lopes reported that the removal of the output bonus improved product quality and the length of service factor helped to

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<sup>32</sup> See, B. Weinstein, 'The Industrialists, the State, and the Issues of Worker Training and Social Services in Brazil, 1930-50', *Hispanic American Historical Review*, (1990), 70, 3, pp387-402.

<sup>33</sup> Vargas, 'Gênese e Difusão...'. See page 20 onwards of the earlier paper presented to ANPOCS, 10/84.

<sup>34</sup> J. Lopes, *Sociedade Industrial no Brasil*, (São Paulo, 1964) - as discussed in Silva, 'Remaking the Fordist Factory', pp12-17.

reduce turnover.

In comparison, the relatively highly paid autoworkers in Rodriques' study<sup>35</sup> were paid according to an average wage policy. His observation that workers felt that the strongest determinant of wages was effort, rather than skill, demonstrated the importance of attitudes to employers. It also suggested that, in this period, due to workers' low skill levels, they were not being deskilled by the rationalisation of production.

These two studies also demonstrate the high levels of turnover evident during this period. Only the most skilled were staying long enough to obtain stability. Also, employers still didn't have very strong reasons to stabilise employment as the majority of jobs required no more than a few days on-the-job training.

A tightening labour market was another reason for high turnover. The changes introduced by the Lopes company thus reflected a growing desire by employers for a more stable workforce. On the basis of their analysis, both authors forecast a growing degree of sophistication and segmentation of employer's job, pay and labour use systems. They also predicted a growing role for unions in the negotiation of factory conditions.

However, rapid growth and the actions of the military regime between 1968-74 acted to fortify this difficult Fordist situation<sup>36</sup>. Many unskilled jobs began to be increasingly filled by female and young workers and semiskilled jobs grew in importance<sup>37</sup>. At the same time, of the high level of labour turnover in the 1970s, it has been suggested that 75% of it was instigated by employers<sup>38</sup>. Moreover, wage levels were kept low, wage growth was well below productivity growth and job security was less costly. Labour was very flexible.

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<sup>35</sup> L. Rodriques, Industrialização e Atitudes Operárias. Estudo de um Grupo de Trabalhadores, (São Paulo, 1970) and as detailed in Silva, 'Remaking the Fordist Factory', pp12-17.

<sup>36</sup> See Vargas, 'Gênese e difusão', and B. Coriat, 'Regime de Acumulação e Relação Salarial no Brasil: Um processo de fordização forçada e contrariada', Ensaio FEE, (1988), 9, 2.

<sup>37</sup> Statistics supporting the following observations can be seen in, DIEESE, Estudos Sócio Econômicos, no.2, 'Família Assalariada: Padrão e Custo de Vida', São Paulo, 1/74, pp26-28.

<sup>38</sup> Barelli, 'O Fundo de Garantia', as noted in Silva, 'Remaking the Fordist Factory.', p22.

This high level of labour flexibility was bolstered by developments within employer ranks<sup>39</sup>. For example, employers began to set up more active working groups and internal management systems were 'forced' to become more bureaucratic. Detailed job classification schemes emerged and pay systems came to be a function of skill, job title and service factors. However, schemes typically provided for the overlap of job categories and overlapping grades between skill categories. This meant that workers could be assigned/reassigned without interfering with service or occupational grade.

Studies of labour use between the late 1970s-early 1980s confirm this difficult picture. For example, Humphrey's analysis of wage and job structures in auto firms (1978-81) confirms a view that complicated wage structures were more a device for labour process and wage bill control than a strategy based on training cost amortisation and employment stability<sup>40</sup>. The evolution of more complex, impersonal wage and job structures and reduced supervisory control were also observed in the machine tools sector in this period<sup>41</sup>.

Only minor changes to a relatively simple Fordist model of labour control thus appear to have emerged up to the early 1980s. The evidence does not support the evolution of ILMs or other more advanced organisational techniques during this period. While firms' structures and processes sometimes became more bureaucratic, the context did not necessitate the use of 'carrots' such as training, stability, career development or involvement as means for securing efficiency and productivity.

In view of this very constraining situation, what effects might this have had on workers' attitudes? An overwhelmingly difficult factory environment did not bode well for attitudes to work and the employer. In this context, the dominance of the corporatist system continued to be cited as a prime mechanism behind workers' attitudes within studies carried out between the 1960s and early 1980s.

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<sup>39</sup> On those mentioned here see, Silva, 'Remaking the Fordist Factory', pp19-20.

<sup>40</sup> Humphrey, Capitalist Control, Ch.3.

<sup>41</sup> G. Harrison, 'Trade Unions and Labour Management: A Brazilian Case Study ', (1986), PhD Thesis, Department of Sociology , University of Manchester .

For example, the Rodriques' study of autoworkers (just prior to the coup) suggested that most workers were not interested in 'politics' of any sort<sup>42</sup>. To most workers, order suggested progress and future benefits and thus was preferred to contestation - even if it was based on state regulation. However, underlying this generally passive orientation was the hope of fairness of treatment by the state.

This strong, but conditional, belief in the state and distrust of 'politics' were also evident from studies of workers' attitudes in the 1970s and early 1980s. For example, Erickson's 1970s study suggested that even those unions desiring stronger worker-union ties faced an electorate of workers who were more inclined to have faith in the state model<sup>43</sup>. A good union was seen to represent what the state had defined them as - a social welfare provider - and thus was merely an extension of the state in workers' eyes. A Vargas style dictatorship was strongly linked to stability and growth and was therefore seen in a more positive light than a democratic system.

An early 1980s study confirmed these general findings but added that this did not mean that workers were totally against strikes<sup>44</sup>. However, a belief in strikes only extended to 'non-political' wage issues and the enforcement of statutory conditions. The state's corporatist framework was still overwhelmingly favoured as the best model for achieving better living standards.

In summary, many workers do appear to have been persuaded to consent to many of the state's structures and principles even after the end of the economic 'miracle'. Nevertheless, as noted earlier, after another period of economic uncertainty and instability some groups saw more space to express alternative views and their more open opposition to non-democratic, corporatist processes and authoritarian, Fordist factory management.

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<sup>42</sup> Rodriques, Indústrialização.

<sup>43</sup> Erickson, Brazilian Corporative State. This study, that by Rodriques (ibid.) and others are reviewed as background for the study by Y. Cohen, The Manipulation of Consent: The State and Working Class Consciousness in Brazil, (Pittsburgh, 1989), Ch.3.

<sup>44</sup> Cohen, The Manipulation of Consent, Chs. 3-5 in particular.

The principles extolled by ‘new unionists’, and the degree of worker support they obtained for actions against employers and the state after the late 1970s, suggested that there was a limit to worker passivity. Yet a militant worker response is not fixed either - it cannot be assumed. In this regard, section 2.4 of this chapter analyses what effects recent modernisation developments appear to be having, not only on tasks but on workers’ attitudes and the probability of resistance by Brazilian workers and their unions in the present period.

The next section of this chapter (2.3) paves the way for this analyses through a discussion of the impact of recent political and economic developments on workers and unions. This discussion illustrates the fact that important macro level changes have occurred during the case study period. However, the discussion also highlights the continuing role played by the institutional and political factors discussed above.

## **2.3 THE POLITICAL AND ECONOMIC CONTEXT OF 1980 - 1994**

### **2.3.1 The Impact of Economic and Political Developments on Labour**

The 1980s to early 1990s was marked by very oscillating growth - large depressions and brief periods of recovery (Table 2.1 below). Overall, growth was below the 1950s and considerably less than during the 1968-74 ‘miracle’. As shown in Table 2.2, inflation re-emerged as a very serious issue and the opening-up of the economy in the early 1990s posed serious challenges to a previously highly protected manufacturing sector.

**Table 2.1: Gross Domestic Product (GDP), % change p.a. and Industrial Output Index (1980=100); Brazil; 1980 -1993**

Year	GDP, % change p.a.	Industrial Output Index
1980	9.2	100.0
1981	-4.3	89.6
1982	0.8	89.5
1983	-2.9	84.2
1984	5.4	89.4
1985	7.9	96.9
1986	7.5	107.8
1987	3.5	108.9
1988	-0.1	105.1
1989	3.2	108.2
1990	-4.4	97.9
1991	0.2	95.6
1992	-0.8	91.7
1993	4.1	99.0

Sources: DIEESE, *Anuário dos Trabalhadores*, 1994, pp133-4 and Instituto Brasileiro de Geografia e Estatística (IBGE), *Industrial Survey*, 1980-94

**Table 2.2: Inflation and Real Incomes, Brazil and São Paulo, 1985 - 94**

Year	Inflation – National Estimate, % change p.a.	Real Incomes – São Paulo Index, 1985 =100
1985	235.1	100
1986	65.0	106
1987	415.8	79
1988	1037.6	78
1989	1782.9	82
1990	1476.6	67
1991	480.2	59
1992	1158.0	58
1993	2708.6	63
1994	1093.8	59

Sources: Fundação Getúlio Vargas (FGV), *General Index of Prices*, and DIEESE/SEADE, *Anuário dos Trabalhadores*, 1994, income of São Paulo private sector employees deflated by the DIEESE, Cost of Living Index, covering families with between 1-30 minimum salaries in 'Greater São Paulo'.

Politically, the transition to democracy took considerable time. A civilian President was elected in 1985. However, social concerns and instability reached new heights. Dissatisfaction with the Government's inability to deliver basic expectations of the populace saw another climax with the virtual impeachment of the second civilian President (Collor) in 1992.

The period thus encapsulated a number of important changes – to the economy and to the intended direction of politics. More open economic and industrial policies were to be a spur to competitiveness. Democracy represented a more open and inclusive way of resolving societal demands.

However, these changes also exposed inherent weaknesses in the structure of the economy and in the political process. This unstable situation had negative effects on most workers. Real wages declined and labour turnover and unemployment remained at very high levels. This subsection traces these developments.

By 1982, the economy had entered a serious recession which lasted until 1984. The combined effects of the oil shocks, deficit financing and the subsequent drying-up of foreign investment (following the Mexican debt moratorium) hit the Brazilian economy very hard. The actions of the regime to meet the 1982 IMF criteria helped to provoke massive unemployment. Unemployment stood at between 15-20% in 1983<sup>45</sup>.

Wage growth was a key variable to be affected by Government policy and inflation in this period<sup>46</sup>. The nine separate wage decrees between 1979-83 were intended to control wage pressures and they did result in wage losses for many workers. However, many workers also benefited monetarily from the ‘miracle’ and first two years of the 1980s<sup>47</sup>. On the other hand, by 1983 lagged salary adjustments came to be tied to a figure much less than actual inflation and inflation began to escalate, breaking through the 200% p.a. barrier in 1984-85 (Table 2.2). This led to much more widespread wage losses<sup>48</sup> and further industrial disruption (again starting in São

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<sup>45</sup> M. Keck, 'Update on the Brazilian Labour Movement', Latin American Perspectives, (1984), 40, 11 (1), p30.

<sup>46</sup> Discussed in, DIEESE, Decretos e Leis da Política Salarial do Governo desde 1979, São Paulo, 1985, and M. Marques, 'A aceleração inflacionária no Brasil: 1973-83', Revista Brasileiro de Economia, (1985), 39, 4.

<sup>47</sup> J. Morais, 'New Unionism and Union Politics in Pernambuco (Brazil) in the 1980s', (1992), Phd Thesis, LSE, University of London, pp61-62/Table 1.2 using data from E. Amadeo and J. Camargo, 'Política Salarial e negociações: perspectivas para o futuro', Ministry of Labour, Discussion Text 11, Brasília, (1989) p18, notes that wages in total rose between 1970-79. Yet some workers gained (the skilled) and some lost (the unskilled) - see E. Taïeb and O. Barros, Économie et société brésiliennes: croissances ou développement?, (Paris, 1989).

<sup>48</sup> As noted by J. Chadad, 'Emprego e salários na administração pública brasileira: evidências da década de 80', Revista Brasileira de Economia, (1990), 44, 4, p555. See also Table 2.4 of this chapter.

Bernardo) in 1983<sup>49</sup>. Many arrests and union interventions ensued.

The election of a civilian President in 1985 raised expectations that many of the difficulties of the past might be corrected. However, the policies of the former military politician (Sarney) and Presidential-designate (after the sudden death of the President) were without an overall direction. President Sarney did not appease social expectations and nor did he effectively control the inflationary spiral. During his administration four stabilisation plans were attempted<sup>50</sup>. Only one of these (the *Cruzado* Plan, 1986) had even a temporary positive effect on inflation and the general economic situation.

The resumption of growth after 1984 was given a boost by the heterodox measures of the *Cruzado* Plan. The currency was changed, prices were frozen and wages and pensions were increased on a one-off basis. As is evident from Tables 2.1-2.4, the plan had a strong, short-term effect on growth, inflation and the labour market. However, later in 1986 the price freeze was lifted and inflation returned at high and accelerating rates, reaching a level of nearly 1,800%p.a. by the end of Sarney's mandate in 1989-90 (Table 2.2).

A relatively low but positive growth rate was experienced between 1987 and the end of 1989 (Table 2.1). However, a strike wave (unparalleled in Brazilian history) also took place in this period. This represented a reaction to many factors. First, as suggested by Table 2.2, each of the plans after *Cruzado* had negative effects on real wages. Secondly, workplace conditions had become a more open area of contestation. The level of dissatisfaction with political processes and economic policy was also rising. Social activism against this situation rose up to, and went beyond, the highly awaited revision to the Constitution in 1988<sup>51</sup>.

The 1989 Presidential election witnessed a contest between a seasoned political activist (Brizola), a new right candidate representing traditional power blocs (Collor) and the high profile ex-President of the São Bernardo metalworkers ('Lula'), now President of the Workers' Party (the PT). However, the hopes of the left were dashed

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<sup>49</sup> As noted in subsection 2.3.2 and listed in Table 2. 7.

<sup>50</sup> See Morais, 'New Unionism and Union Politics, pp65-69 for a summary.

by Collor's victory over 'Lula' in the second round. Collor, relatively unknown until that point, projected a charismatic image of a leader keen to assert Brazil's role in a more open international setting.

Nonetheless, international and national factors led Brazil back into recession between 1990-92. During these years the economy shrunk at a rate of nearly 2% per annum (Table 2.1). Domestically, orthodox policies were generally followed<sup>52</sup>. The continuation of lagged and partial wage adjustments underpinned a slump in domestic demand.

The economy was also opened up to foreign competition to a greater extent during these years<sup>53</sup>. Tariff changes sought to reduce the average nominal tariff from 37% in 1990 to 20% in 1994<sup>54</sup>. The progressive removal of export and input subsidies and the introduction of a market based exchange rate regime also started to make trade more transparent and open.

Domestic producers, therefore, had to search more intensely for efficiency gains and new markets. However, the Government sought to ease the pressures that this created through a series of 'positive' incentives. One of these, the 'Brazilian Programme for Quality and Productivity' (PBQP), sought to encourage Brazilian firms to improve their quality, productivity and efficiency levels. Echoing the modernisation schema, the programme is focused on enhancing the awareness and motivation for quality and productivity, the encouragement of new management methods and the promotion of better human resources policies<sup>55</sup>.

Nevertheless, the combined effects of international recession, domestic readjustment and inflation resulted in further losses for workers. As can be seen from a

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<sup>51</sup> See section 2.3.2 and Table 2. 7.

<sup>52</sup> The major exception to this was Collor's 1990 freeze on bank deposits. However, this 'shock' had only a temporary effect on price expectations and led to massive real wealth losses and social discontent.

<sup>53</sup> As noted in A. Fleury and J. Humphrey, 'Human Resources and the Diffusion and Adaptation of New Quality Methods in Brazil', *IDS Research Report*, (1993), no. 24, p1 based on figures from, Industrial Development Board, *Economic and Social Progress in Latin America – 1992 Report*, Washington D.C., 1992, Inter American Development Bank, p230, 248.

<sup>54</sup> Fleury and Humphrey, 'Human Resources', p1.

<sup>55</sup> *Ibid.*, p2. See also, Ministério da Justiça/Ministério da Economia, Fazenda e Planejamento/ Secretaria

comparison of Tables 2.3 and 2.4, while productivity rose, this was primarily because employment was declining faster than output. Most sectors saw declining real incomes, massive retrenchments and a serious lack of employment stability.

**Table 2.3: Manufacturing Productivity, % change p.a.; Industrial Output, Indexes, Metalurgical and Mechanical Sectors, (1980=100); Brazil; 1986 - 93**

Year	Manufacturing Productivity, % change p.a.	Output Index Metalurgy, 1980 = 100	Output Index Mechanical, 1980 = 100
1986	-1.8	106.5	92.1
1987	-0.9	106.9	95.8
1988	0.5	103.4	87.5
1989	5.7	108.6	91.9
1990	-2.9	94.9	76.5
1991	8.4	89.5	68.6
1992	5.5	88.9	62.0
1993	10.5	95.7	72.7

**Sources:** DIEESE, Anuário dos Trabalhadores, 1994, pp142-4, and IBGE, Industrial Survey, 1980-1994

For example, in São Paulo alone, the industrial unemployment rate nearly doubled between 1989 and 1992 (Table 2.6). In manufacturing, employment was less in 1992 than in 1985 (Table 2.4). Secondly, by 1992 the index of the real minimum wage reached a low of 26 compared to its 1985 level of 53 (Table 2.5). More specifically, as shown in Table 2.4, in manufacturing the index of real wages of production employees fell to just over 69 by 1992 compared to a base of 100 in 1985. Inflation of around 2,000% p.a. was eroding real incomes (Table 2.2) and average turnover levels of over 30% (Table 2.6) underscored the uncertainty of this situation for most workers.

**Table 2.4: Real Wages and Employment in Brazilian Manufacturing, Indexes for Production Employees, (1985 = 100); 1985-93**

Year	Real Wage Index	Employment Index
1985	100.0	100.0
1986	110.7	113.2
1987	88.9	109.7
1988	94.2	108.4
1989	88.7	111.8
1990	35.1	103.7
1991	62.1	95.5
1992	69.2	85.1
1993	69.9	84.2

**Source:** IBGE, *Monthly Industrial Survey*, 1985-94.

**Note:** Nominal wage indexes deflated by yearly inflation estimate (Table 2.2)

**Table 2.5: Real Minimum Wage Index, (1940=100); Brazil; 1940 – 94**

Year	Real Minimum Wage Index
1940	98
1949	42
1959	119
1970	69
1980	62
1983/84	56
1986	50
1988/89	41
1992	26
1993	29
1994	22

**Source:** DIEESE, *Anuário dos Trabalhadores*, 1994, p35.

**Table 2.6: Total and Industrial Unemployment Rates, São Paulo; Labour Turnover Rate in Manufacturing, Brazil, 1985-93**

Year	Total Unemployment Rate, São Paulo	Industrial Unemployment Rate, São Paulo	Labour Turnover, Brazilian Manufacturing
1985	12.2%	11.0%	35.2%
1986	9.6%	8.5%	47.6%
1987	9.2%	10.0%	47.4%
1988	9.7%	10.3%	45.2%
1989	8.7%	9.2%	38.9%
1990	10.3%	11.5%	-
1991	11.7%	14.2%	27.3%
1992	15.2%	18.0%	32.5%
1993	14.6%	17.8%	34.4%

**Sources:** DIEESE, *Anuário dos Trabalhadores*, 1994, p85; DESEP, *Indicadores DESEP*, 1994, p110; and (turnover) calculations based on – Ministry of Labour, *Cadastro Geral de Empregos e Desempregados*, (Lei 4923/65), 1985-95.

Politically, the social euphoria of 1985-86 was rapidly diluted by the experience of Brazil's first two civilian presidencies. When earlier allegations of massive presidential corruption became more substantiated in 1992, this was the last straw<sup>56</sup>. Massive public protests were added to by a parliamentary enquiry which led to President Collor's resignation in the face of an impeachment vote later that year.

In comparison, the year 1993 witnessed a recovery in growth and higher levels of industrial production and productivity (Tables 2.1 and 2.3 respectively). However, inflation broke the 2,000% p.a. mark (Table 2.2), unemployment remained high (Table 2.6) and real wages stayed low (Table 2.4). The effects of a collapse in social policy and low levels of confidence dominated most areas of Brazilian society.

Economically, inflation was considered to be the main political problem. After a number of changes in Economy Minister, Fernando Henrique Cardoso was appointed and given a free reign to develop a plan for controlling inflation. The 'Real Plan' (*Plano Real*) proposed a transitional currency unit (indexed on a daily basis to the dollar, as were wages) in preparation for a new and more complicated currency change. The initial, very positive effects of Cardoso's plan were undoubtedly an important reason for his first round win against 'Lula' (PT) in the 1994 Presidential election.

In summary, the case study period was marked by important moves to make Brazil a more open and inclusive society – economically and politically. However, continuing political, institutional and structural frailties and the difficulties of the adjustment process spelt further losses for workers. Real wages declined and turnover and unemployment remained unacceptably high. As illustrated in the next subsection, this situation was also echoed in the fortunes of the union movement during this period.

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<sup>56</sup> Well illustrated in *Veja*, 30/9/92, pp20-24. Economic aspects of the 1980s and the Collor period are well-covered in, DESEP, *Crise Brasileira-Anos Iotenta e Governo Collor*, (São Paulo, 1993).

### 2.3.2 Political and Industrial Relations Change and the Labour Movement

Despite large protests in 1983<sup>57</sup>, industrial disputes did not begin to escalate appreciably until the period of the *Cruzado* Plan (1986). As shown in Table 2.7 below, strike indicators after this date suggest a level of disquiet (up to 1992) dwarfing the strike wave of the late 1970s. Behind these actions lay concerns over shopfloor issues, wage losses, political processes and the impending review of the industrial relations system. However, the union centrals differed in their attitudes and approach to these issues. The following discussion illustrates not only these changes but also how they signify some continuity with older themes in Brazilian industrial relations.

**Table 2.7: Strikes in Brazil, average number and average number of hours lost, 1978-93**

Year	Average Number of Strikes, per Month in Year	Average Number of Hours Lost, in 000's
1978	10	14.6
1979	21	166.3
1980	12	111.3
1981	13	55.8
1982	12	41.3
1983	33	105.7
1984	52	112.4
1985	77	612.5
1986	139	424.7
1987	182	1058.4
1988	178	708.5
1989	329	1971.4
1990	196	1498.2
1991	117	1810.2
1992	52	180.6
1993	61	46.2

Source: DIEESE, *Anuário dos Trabalhadores*, 1994, p124-5

During the early 1980s recession 'new unionists' concentrated on building better shopfloor relations and direct forms of dialogue with employers<sup>58</sup>. However, after the 1985 presidential election the confidence of the union movement was given a

<sup>57</sup> This was the year of the first and major general strike (CONCLAT organised) since 1963.

<sup>58</sup> See W. Mangabeira, 'Union Politics and Workplace Militancy: a case study of Brazilian Steelworkers in the 1980's', (1991), PhD Thesis, LSE, University of London, p153, 158. Keck, 'New Unionism', p268 suggests that their earlier strategies paid off.

further boost due to a distinct change in the approach of the Government to industrial relations<sup>59</sup>. A former union lawyer was made Minister of Labour, interventions and strike breaking fell dramatically, union centrals were formally allowed and amnesties were given to many banned and gaoled unionists.

With the lifting of the price freeze in the latter part of the *Cruzado* period, the union centrals (CUT, CGT, USI) co-ordinated a massive, quite successful, general strike in 1986<sup>60</sup>. However, its coverage beyond large industrialised areas such as the ABC was scattered. Moreover, the relative failure of another general strike in 1987 highlighted the fragility of union power and the many differences between these union centrals<sup>61</sup>.

In fact the *Cruzado* plan itself helped to highlight differences in the attitudes of the union centrals. For example, the USI took a line fairly solidly behind the state corporatist model. The CGT, while against many of the normative powers of the Ministry of Labour, also advocated union unity<sup>62</sup>. Both these centrals had welcomed the *Cruzado* plan. However, CUT was more cautious, highlighting the need to challenge the Government and capitalist forces more fundamentally. They also noted that, under the plan, workers did not recover past wage losses to the degree they should have.

The years 1988 and 1989 saw the emergence of further splits within the labour movement. For example, the union movement took great interest in the 1988-89 changes to the Constitution as these would override the Labour Code<sup>63</sup>. The key issues in debate were job security, the right to strike and to shopfloor representation and the degree to which the labour movement had autonomy from the state. In the end, important changes were to occur. However, centre-right forces in politics and the labour movement won the day. More significantly, even CUT supported the retention

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<sup>59</sup> Keck, 'New Unionism', p252.

<sup>60</sup> DIEESE, *Boletim DIEESE*, 2/87.

<sup>61</sup> Using DIEESE statistics, Alves, 'Trade Unions in Brazil' p53 and p67, notes how much less well attended the 1987 strike was compared to the general strike in 1979.

<sup>62</sup> See, for example, DIEESE, *Boletim DIEESE*, 'Estatutos da CGT', 4/86, pp11-15, and *ibid.*, 'CGTs Plano de Lutas', 5/86, pp25-26.

<sup>63</sup> On this see, Morais, 'New Unionism and Union Politics', pp58-59, DESEP-CUT, 'A Nova Constituição Sindical', *Debate Sindical*, no 9, 10/88 and E. Passos, 'Os diretos sindicais na nova Constituição', *Cadernos da CUT*, 1/89.

of key aspects of the Labour Code.

The Constitutional revision reduced the normative role of the state in industrial relations<sup>64</sup>. The changes included - the relaxation of the Ministry of Labour's control of union formation, recognition and conduct and a less restrained right to strike. Provisions were also made for shopfloor representation and the formal working week was reduced from 48 to 44 hours.

However, strikes were limited to 'non-abusive' actions and the labour courts retained a right to arbitrate over any dispute which reached an impasse. Secondly, collective negotiation between unions and employers was limited by area and sector. Thirdly, a job security suggestion was rejected in favour of a percentage increase in employer payout (from 8% to 40%) if an employee was unjustly dismissed. Most importantly, the principle of monopoly of representation was retained as was the compulsory union tax (IS). While the Ministry of Labour's part of the tax was to be given to unions, the retention of these regulations meant that existing unions were secure and that unions still did not have to develop strong ties to workers to secure funding.

While the CUT and the CGT had many differences, both groups recognised that if total pluralism was introduced and the IS was removed unions would have little hope of immediate survival<sup>65</sup>. Unionism was very low, economic conditions were precarious and the majority of the workforce was considered to be unprepared to support more active unionism. This situation was underscored by the fact that, while CUT was confirming its credentials in areas such as the ABC industrial region, this type of union-worker model was much less common in other regions and sectors.

However, as CUT grew, new divisions occurred within the CGT during 1989. For the next two years two CGTs existed. When one of their leaders (Magri) was made Minister of Labour in the Collor Government, this group's new leader (and President of the São Paulo Metal Workers) gave the body a new name (in 1991) and fortified the

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<sup>64</sup> Morais, 'New Unionism and Union Politics', pp58-59.

<sup>65</sup> Keck, 'New Unionism', pp260-61, quoting from an interview with Lula.

organisation's non-political rhetoric. The phrase 'unionism of results' became synonymous with L. Medeiros and the *Força Sindical*<sup>66</sup>.

What therefore had emerged by the early 1990s were two very visible and distinctive organisations of labour – CUT and *Força Sindical*. Each has the desire to be strongly involved in the co-ordination of the labour movement. Yet the economic and institutional situation made it difficult for either to clearly dominate the political scene. However, what distinguishes them most are their interests, agendas and forms of representation. As noted below, nowhere is this better illustrated than in their approach to industrial modernisation.

For example, by the early 1990s the CUT was defining its role in a number of key areas. Principal amongst these were - the notion of a system of collective contracts (*Contratos Coletivos*), industry level accords (*Câmaras Setoriais*) and increased worker education in respect to the negative potential of industrial modernisation<sup>67</sup>. This last issue, in particular, represented a new and important thread to CUT's policies and strategy.

In the early 1990s *Força Sindical* also increased its profile and made its strategic orientation more explicit. Yet, building links within national and regional labour federations and important unions became a clear priority. For example, in 1993 they solidified their control of the São Paulo metal workers and that state's metals confederation.

The visible political stance of *Força Sindical's* President (Medeiros) and the publication of '*Um Projeto Para O Brasil* (A Project for Brazil)' also confirmed that they too were far from a-political. However, that document suggests that they

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<sup>66</sup> For a view on this group's programme and founding conference see, DIEESE, *Boletim DIEESE*, 4/91, p11 and M. Martins, *Sindicalismo e Relações Trabalhistas*, (São Paulo, 1991), p154.

<sup>67</sup> For example, between 1991-93 the CUT set up three regional union training schools. The sessions on labour process themes held at the schools echo the high importance these issues hold for the CUT. Articles on these themes form the core of publications such as - Central Unica dos Trabalhadores (CUT), *Revista da Secretaria Nacional de Formação- Forma e Conteúdo*, no. 4, 9/91.; CUT, *Plano Nacional de Formação da CUT 1992*, April, 1992.; *Confederação Nacional dos Metalúrgicos da CUT (CNM/CUT)*, *Revista dos Metalúrgicos*, ano 1, no.1, 12/93.

represent a continuation of 'top down' Brazilian unionism<sup>68</sup>. The 'Project for Brazil' document presented a detailed treatment of the group's preferences for political, scientific, social and labour relations change, including a more neo-liberal endorsement of the need for unions to be more flexible and support industrial modernisation. Yet, in addition to its much less critical treatment of modernisation compared to CUT, the document was based on little discussion with workers.

Despite the enhanced public profile of the labour movement, and these two factions in particular, by the 1990s unionisation in Brazil still stood at low levels. Following the Constitutional changes the number of union entities grew rapidly (17% between 1988-90 for example)<sup>69</sup>. However, total unionisation declined slightly from 27% to 24% between 1988 and 1990<sup>70</sup>.

Furthermore, on an overall basis, it does not appear that CUT stood out. For example, overall unionisation to CUT unions was only 28% in 1990<sup>71</sup>. As with their previous reactions to unions, workers still seem to have a (low) level of attachment to unionism reminiscent of the past. However, an important caveat to the above picture can be seen in the high levels of CUT union coverage in key sectors<sup>72</sup> and the sophisticated, well supported efforts key CUT unions are making to confront modernisation in some parts of the auto sector<sup>73</sup>.

Nevertheless, low overall unionisation, high concentrations of CUT militancy and strong union-political links have led some writers to suggest that little has changed within the Brazilian labour movement<sup>74</sup>. Despite their greater commitment to workplace representation and the installation of factory level structures in many plants,

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<sup>68</sup> See *Um Projeto Para Brasil - A Proposta da Força Sindical*, ed. L. Emediato (São Paulo, 2nd ed., 1993)

<sup>69</sup> DESEP, *Indicadores DESEP*, 1994, p17.

<sup>70</sup> *Ibid.*, p21.

<sup>71</sup> As discussed in CUT, *Retrato da CUT*, 1990, São Paulo, and M. Rands, 'Brazilian Industrial Relations: alternative proposals of the new unionism', (1992), M. Sc. Dissertation, Oxford University, p21.

<sup>72</sup> For example, in 1990, 75% of oil workers, 90% of educational workers, 64% of metalworkers and 54% of chemicals workers were covered by unions affiliated to CUT. In comparison, the coverage of *Força Sindical*, the CGT and the USI is more narrowly based – Rands, 'Brazilian Industrial Relations', p22 and CUT, *Retrato da CUT*, 1990, pp45-58.

<sup>73</sup> Discussed in section 2.4.2.

<sup>74</sup> A restatement of a labour aristocracy view (for CUT) is most strongly put by, A. Boito, *O Sindicalismo de Estado no Brasil*, (São Paulo, 1991).

even CUT has been portrayed as simply a new, legalistic form of union populism and labour aristocracy. Sector level accords (*Câmaras Setoriais*) between metals unions, employers and the Government - developed for the auto industry in the early 1990s - might be seen in this light.

The above type of argument was suggested, but disproved, for this very same region and group little more than a decade earlier. While the passing of the 1980s may have changed this prognosis, it should also be of little surprise that elements of older processes may simply reappear in new forms. *Força Sindical* may be a good example of this. On the other hand, it is uncertain whether 'new unionism' may become the norm.

In summary, this subsection has illustrated how political and regulatory changes, during the case study period, affected the Brazilian labour movement. A more open environment for contestation led to an explosion in strikes and more visible attempts by some unions to reach out to workers and articulate their workplace concerns. Some efforts were also been made to build co-ordinating structures and policy agendas across the labour movement, albeit by a number of union factions.

However, the process of change is slow and ambiguous. For example, as evidenced by the continuation of low wages and high levels of turnover noted in subsection 2.3.1, it is by no means certain whether 'older', authoritarian managerial attitudes have changed. Just as importantly, the rules for workplace representation, strikes, arbitration, union finances, union coverage, wage negotiations and job security still do not promote a clear and positive environment for unions, either at the workplace or the macro level.

Modernisation developments in the most recent period may make the task of even representative forms of unionism all the more complex. Comprehensive forms of modernisation and greater institutional support for them may act to change work and attitudes in more radical ways than in the past. Accordingly, the last section of this chapter surveys modernisation trends across Brazilian industry and the specific issues these raise for work and industrial relations in Brazil.

## 2.4 MODERNISATION TRENDS AND THEIR IMPLICATIONS FOR WORKERS AND INDUSTRIAL RELATIONS

The 1980-94 period saw a discernible process of modernisation under way within Brazilian industry. However, the process was tentative and piecemeal up to the late 1980s. The major problem for Brazilian industry was that, while Brazil had the second fastest growth in exports among Latin American countries between 1970-89, this had been primarily based on protective policies and subsidies<sup>75</sup>. Quality and efficiency levels were still very low relative to international standards<sup>76</sup>.

As noted above, by the early 1990s new economic and trade policies were being pursued. Competitiveness was to be promoted through greater exposure to overseas competition. Companies increasingly needed to raise their quality and efficiency levels if they were to secure local markets and beat foreign competitors in other markets.

Despite the recession of the early 1990s, clearer signs emerged that Brazilian industry was experimenting with more comprehensive modernisation strategies in this period. However, examples were still limited to large and TNC dominated firms. Moreover, fundamental questions remain in respect to the degree of change.

The ways in which the Brazilian debates about modernisation have influenced the structure of this study are summarised in subsection 2.4.2. The following subsection (2.4.1) provides a sub-periodisation of how the modernisation process changed between 1980-94. It also notes that this process appears to have had some impact on industrial efficiency, quality levels and labour turnover rates by the mid-1990s.

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<sup>75</sup> Fleury and Humphrey, 'Human Resources' p1.

<sup>76</sup> *Ibid.*, pp1-2

### 2.4.1 Modernisation Trends between 1980 and 1994<sup>77</sup>

Studies up to the mid-1980s noted a limited take up of new technologies and organisational techniques. The overriding interpretation of what was occurring was negative. While key sectors saw more substantial change as the decade came to a close, most developments were more technological than organisational.

This slow process of modernisation was most marked in the early 1980s. First, (Table 2.8 below) available statistics suggest that the rate of diffusion of new technologies was very limited prior to 1985. Market protection and low labour costs meant that it was not until the mini-boom of 1985-86 that indicators of advanced technology showed any real change<sup>78</sup>.

**Table 2.8: Indicators of Technological Modernisation in Brazilian Industry; 1981-92**

Equipment/Period	1981-1984	1985-1988	1989-92*
CN/CNC:			
-units installed	592	3006	3371
-total stock by end	764	3770	7141
ROBOTS:			
-units installed	-	99	246
-total stock by end	-	99	345
CAD:			
-units installed	-	1543	121
-total stock by end	-	1543	1664

**Sources:** Sociedade Brasileira de Comando Numerico (SOBRACON), Retrospectiva da Década de 80 do Setor da Automatização Industrial, (1989) and, Automatização Industrial e Computação Grafica – guia brasileira de automatização Industrial, (1992), São Paulo.

**Notes\*:** 1) NC/CNC figures for 1989-92 are an underestimate as they do not include imports. 2) Robot numbers for 1992 are as estimated by ASEA-Brown Boveri do Brasil.

<sup>77</sup> A large number of authors are referred to in this subsection, many of which are particularly well treated in, M. Leite, 'Reestruturação Produtiva, Novas Tecnologias e Novas Formas de Gestão da Mão-de-Obra', in O Mundo do Trabalho, orgs. C. J. Mattoso et al, CESIT, (São Paulo, 1994)

<sup>78</sup> Leite, 'Reestruturação...', p567.

Secondly, the limited way in which modernisation techniques were applied simply served as a recipe for failure. For example, studies of Quality Circles (QCs) up to 1985 highlighted that they were applied mainly to skilled workers<sup>79</sup>. Others noted an emphasis on discipline within QCs, the lack of real adjustments in employee relations and that, when pushed, QCs met with considerable opposition from supervisory and technical staff<sup>80</sup>. Many unions also reacted to this ‘unbalanced’ form of modernisation. Quality circles seemed to represent simply a new strategy for heading off a rise in unionism<sup>81</sup>.

Confirming these trends, a large early 1980s survey<sup>82</sup> of over 5,000 industrial enterprises suggested that only 25% were using any type of advanced technique to manage production and product control. Only 10% of the sample was using what were then considered to be modern stock control and evaluation systems. Those firms that did appear to be modernising used new techniques in a non-integrated way and users were principally confined to large, foreign controlled enterprises.

Consequently, a particularly tough picture of labour use in Brazilian industry remained a relatively undisputed ‘norm’ up until the mid-1980s. ‘Routinisation’ - which included narrowly divided tasks, extensive labour substitution, low salaries and high turnover - was the term used to describe this<sup>83</sup>. While unions were often more vocal, most workers could only see negatives within this authoritarian and limited modernisation context<sup>84</sup>. The ‘indignity’ which provoked many of the late 1970s-early

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<sup>79</sup> H. Hirate, ‘Recitas Japonesas, realidade Brasileira’, Novos Estudos-CEBRAP, (1983), 2, pp61-65.

<sup>80</sup> M. Salerno, ‘Produção, trabalho e participação: CCQ e Kanban numa nova imigração japonesa’ in, Processo e Relações do Trabalho, orgs. A. Fleury and R. Fisher, (São Paulo, 1985) and M. Fleury, ‘Organização do Trabalho na Indústria: Recolocando a questão nos anos 80’, also in, Processo e Relações, orgs. Fleury and Fisher.

<sup>81</sup> M. Leite, ‘Innovación Tecnológica, Organización del Trabajo y Relaciones Industriales en el Brasil’, Revista Nueva Sociedad, (1993), 124, March-April.

<sup>82</sup> Industrial Development Council, Ministry of Industry and Commerce - H. Braga, ‘Tecnologia e Produção da Indústria Brasileira: uma análise exploratória’, mimeo, Rio de Janeiro, (1987), also noted in J. Ferraz et al, Development Technology and Flexibility: Brazil Faces the Industrial Divide, ( London, 1992), p93.

<sup>83</sup> A term used by, A. Fleury, ‘Rotinização do Trabalho: O Caso das Indústrias Mecânicas’, in Organização do Trabalho, eds. A. Fleury and N. Vargas, (Sao Paulo, 1982). See also, Humphrey, Capitalist Control

<sup>84</sup>L. Abramo, ‘A Subjectividade do Trabalhador Frente á Automação’ in Automação e Movimento Sindical no Brasil, R. Neder et al, (São Paulo, 1988).

80s conflicts was probably still fresh in the minds of many<sup>85</sup>.

In comparison, between 1985-89 the literature confirms a more mixed picture of the modernisation process. For example, case studies in the mid-1980s highlighted some growth in the use of technologies in the informatics and consumer durables sectors<sup>86</sup>. However, this was mainly limited to post-production inspection rather than functions which involved workers in the achievement of quality at source. The main exception to these trends was in sectors which were directly feeling the effects of competition (e.g. autoparts and autos). Confirming this, case studies in this key sector of manufacturing identified continuing growth in the use of new technologies<sup>87</sup>.

Studies of the engineering and capital goods sectors also gave some indication of change. For instance, while 25% of such firms in Fleury's late 1980s study were not integrating any automated equipment,<sup>88</sup> this author also reported that many larger firms were taking a more systematic (less 'routinised') approach to modernisation<sup>89</sup>. New techniques, in particular, were seen as holding the most potential to change work. Nevertheless, the average 'moderniser' was not integrating equipment changes and organisational techniques. Cost minimisation remained the principal driving force behind employer decisions.

These partial modernisation examples suggested to some that Fordism and Taylorism were simply being reinforced<sup>90</sup>. Such studies complemented the conclusions of Silva's 1986 comparison of Ford in Brazil and the UK, in which it appeared clear that a key Brazilian auto employer was still using explicit and simple forms of labour control<sup>91</sup>. Workers appeared to be labouring under more onerous conditions within

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<sup>85</sup> As noted by L. Abramo, 'O Resgate da Dignidade (A Greve de 1978 em São Bernardo)', (1986), Masters Dissertation, University of São Paulo.

<sup>86</sup> For example, see Fundação Vanzolini, 'Qualidade Industrial: Análise e Proposições', mimeo, (São Paulo, 1986) - also noted in Ferraz et al, Brazil...Industrial Divide, p94.

<sup>87</sup> For example, see R. Carvalho, Tecnologia e Trabalho Industrial, (Porto Alegre, 1987)

<sup>88</sup> A. Fleury, 'Flexible Automation in Brazil', in Microelectronics in 3rd World Countries: Quality, Competition, International Development of Labour and Employment, eds. Watanabe (Geneva, 1991) - also noted in Ferraz et al, Brazil...Industrial Divide, p97.

<sup>89</sup> See, A. Fleury, 'Microeletrônica e Organização da Produção e do Trabalho na Empresa' São Paulo em Perspectiva, (1988), 2, 3, July-Sept.

<sup>90</sup> Carvalho and Schmitz, 'Fordism is alive'.

<sup>91</sup> E. Silva, Refazenda a Fábrica Fordista, (São Paulo, 1991).

Brazilian plants than in their British counterparts. A study of electrical equipment firms in the mid-1980s also noted the continuation of 'older' methods of labour control, this time involving the segmentation of women workers and the fear of economic failure<sup>92</sup>.

This mixed picture of the modernisation process is also well illustrated in reviews of the use of new organisational techniques. Many commentators noted that as the decade progressed employers were using techniques such as internal JIT, Kanban, SPC and cells to a greater degree<sup>93</sup>. However, within JIT systems, participation remained limited<sup>94</sup>, work speed had increased<sup>95</sup> and there appeared to be little improvement to the previously observed separation of conception and execution functions (e.g. between programming and machine operation)<sup>96</sup>.

To some, the phrase 'Taylorised JIT' seemed an appropriate label for the processes involved<sup>97</sup>. New tasks were required and much greater use was being made of automated technologies. However, workers were still tied to a machine(s) and the greater transparency of workplace systems permitted more intense evaluation. The weakness of unions at the workplace, and the great 'flexibility' that firms already had to deploy workers were two key reasons behind this view that more comprehensive versions of the 'Japanese' model would not be seen.

Moreover, Brazilian firms were still very hierarchical and continued to use complicated wage and occupational structures and large salary differentials<sup>98</sup>, much as

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<sup>92</sup> E. Leidke, 'Inovação Tecnológica e Ação Sindical nas Indústrias Metal-mecânica e Eletro-Eletrônica no Rio Grande do Sul', Revista Educação e Sociedade, (1992), 41, reiterates these points as made in her Phd thesis (Department of Sociology, Brown University, 1990).

<sup>93</sup> Based on the author's review of, DIEESE, Boletim DIEESE, (São Paulo, 1981-89) all articles on 'Linha de Produção'. In particular, 8/89- 'Mudanças Tecnológico-Organizacionais em Alguns Setores da Indústria Metal-Mecânica' and 7/89 'Organização do Trabalho e Automação Microeletrônica na Indústria Metalúrgica Brasileira'. Points also noted in Leite, 'Reestruturação...' pp568-569 and the authors noted in this same paragraph.

<sup>94</sup> M. Salerno, 'Produção, trabalho e participação..' (1985) and 'Modelo Japonês, Trabalho Brasileiro' in Sobre o Modelo Japonês, org. H. Hirate, (São Paulo, 1993)

<sup>95</sup> Carvalho and Schmitz, 'Fordism is alive..'

<sup>96</sup> Noted for the early 1980s by R. Tauile, 'Microelectronics, Automation and Economic Development', (1984), Phd thesis, SSR, New York University. For the late 1980s see – M. Leite, O futuro do Trabalho: Novas Tecnologias e subjectividade operária, (São Paulo, 1994)

<sup>97</sup> As suggested by J. Humphrey, 'Adaptando o "Modelo Japonês" ao Brasil' in Sobre o Modelo Japonês, org. H. Hirate, (São Paulo, 1993), p255-256

<sup>98</sup> Noted by J. Ferro, 'A produção enxuta no Brasil', in A Máquina que Modou o Mundo, eds, J. Womack et al, (Rio de Janeiro, 1992), p337 and confirmed by Leite, 'Reestruturação...', p572.

they did in the 1970s. Older style management policies were continuing for all but the most key skill groups. Workers do appear to have been concerned about changes to their work and the lack of compensation for their new tasks, despite their fascination in new technologies<sup>99</sup>. The absence of worker involvement, few recognised skill changes and rising turnover rates characterised the process<sup>100</sup>.

Surveys of performance outcomes across industry confirmed this partial picture of modernisation. For example, in a late 1980s survey of 220 firms Sequera<sup>101</sup> reported that high levels of defects, low customer satisfaction, high stock levels and long lead times characterised Brazilian industry. Even the auto industry, a key Brazilian user of technology, still had low levels of quality and productivity relative to international standards<sup>102</sup>.

On the other hand, a degree of optimism was being fuelled by other studies. For example, a study of leading firms by Lima<sup>103</sup> found that the more integrated use of JIT, SPC, Kanban and cells was having significant effects on stock, lead times, scrap and reworking/quality<sup>104</sup>. The large oscillations in economic activity which were occurring probably made turnover a hard factor to stabilise. Economic uncertainty may have also worked against the modest increases to firm level training that a number of authors were noting at this time<sup>105</sup>.

Moreover, the progressive use of modernisation techniques beyond process sectors to some discrete product sectors suggested that a less negative assessment of

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<sup>99</sup> Leite, *O Futuro*

<sup>100</sup> Noted in *BOLETIM DIEESE*, 'Estudos e Pesquisas-Rotatividade: Conceito e Determinantes (Primeira Parte)', 12/88, pp7-10. This was still the case for industry in general and even for key industries such as autos up to 1989 –R. Carvalho, "Projeto do Primeiro Mundo com conhecimento e Trabalho de Terceiro?", paper presented to the seminar, 'Trabalho e Educação', São Paulo: Fundação Carlos Chagas, (1992). See also, Leite, 'Reestruturação...', p571 and Table 2.

<sup>101</sup> Reported in Ferraz et al, *Brazil..Industrial Divide*, p95.

<sup>102</sup> Ferro, 'A produção enxuta no Brasil', pp321-323 and as noted in Leite, 'Reestruturação...', p573 and Table 3.

<sup>103</sup> I. Lima, 'Análise das consequências da utilização das filosofias e técnicas japonesas de gestão da produção sobre o rendimento das empresas', (1989), MA dissertation, Federal University of Rio Grande do Sul.

<sup>104</sup> As noted by J. Humphrey, "Japanese" Methods and the Changing Position of Direct Production Workers: Evidence from Brazil', in *Global Japanization – The Transnational Transformation of the Labour Process*, eds. T. Elgar and C. Smith, (London, 1994), p334.

<sup>105</sup> See, for example, L. Gitahy and F. Rabelo, 'Educação e Desenvolvimento Tecnológico: O caso da

modernisation and its effects may become warranted<sup>106</sup>. This same study noted that direct production workers in autos, while losing some tasks, were taking on new conceptual skills and indirect evaluative tasks. Others also argued that the effects of modernisation on skills and employment could be positive, at least on already skilled workers in capital goods production<sup>107</sup>.

In this regard, one of the most optimistic industry wide surveys of the late 1980s was that carried out on behalf of SENAI by Ferraz, Rush and Miles<sup>108</sup>. While the study is selective due to its attempt to illustrate 'best practice', an impressive 80%-90% of the 132 sample firms had integrated some form of flexible automation (FA) and organisational technique (OT) by 1989<sup>109</sup>. The use of these methods was particularly high at the shop floor and the managerial respondents were even more optimistic about the degree of use of FA and OT in the future (the year 2000).

However, as with much of the international experience, within the sample the actual intensity of use of OT and FA was low<sup>110</sup>. Secondly, a considerable degree of naivety (or rigidity) was noticed in respect to firms' lack of preparedness to invest in worker training and make more fundamental changes across their operations. Thirdly, while strikes were high at the time of the research, economic activity was at reasonable levels. It is then significant to note that most firms identified cost and economic-political uncertainty as the key constraints to modernisation<sup>111</sup>. More strikingly, it is highly significant that 70% of the sample did not see labour use constraints or union power as relevant determinants of the use of organisational techniques<sup>112</sup>.

Nevertheless, the difficulty that arose for industry in the early 1990s was that a severe recession occurred at the same time as the economy was starting to feel the effects of liberalisation, reduced protection and increased foreign competition.

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indústria de auto-peças' Textos Para Discussão, 11, 1991, UNICAMP-Campinas, DPCT/IG.

<sup>106</sup> See R. Carvalho, 'Programmable Automation and Employment Practices in Brazilian Industry', (1993), DPhil, University of Sussex.

<sup>107</sup> See E. Leite, 'Inovação Tecnológica, Emprego e Qualificação na Indústria Mecânica', in Anais do Seminário eds. Fischer et al, pp760-785.

<sup>108</sup> Ferraz et al, Brazil...Industrial Divide, See in particular Chs. 4-8.

<sup>109</sup> *Ibid.*, Ch. 6.1, pp155-183.

<sup>110</sup> *Ibid.*, pp144-151.

<sup>111</sup> *Ibid.*

Ominously, surveys of Brazilian management in 1990 suggested that they were still ill prepared to confront the challenges of a more open export market<sup>113</sup>. Yet, even within this difficult setting a number of early 1990s studies suggested greater optimism about the modernisation process. For example, a late 1991 study by Fleury and Humphrey of 18 (not necessarily leading) metals employers in the industrialised southeast (São Paulo and Rio Grande do Sul) highlighted more optimistic changes within industry than they had reported in earlier periods<sup>114</sup>. The phrase 'Taylorised JIT' seemed to be less applicable in the face of the growing number of examples of comprehensive modernisation<sup>115</sup>.

In particular, despite political-economic constraints and (maybe also because of) dissatisfaction with Government policy, some employers appeared very advanced in their use and integration of new quality techniques<sup>116</sup>. Furthermore, while their approach had been piecemeal at first, some employers had embarked on a more integrated, firm level approach and were making considerable investments in training, education and motivation<sup>117</sup>. Workers were more involved in processes, with employer initiatives including new occupational structures, new work responsibilities and significant changes to company hierarchies, particularly in terms of reduced overt supervision<sup>118</sup>.

A 1994 study of management and workplace techniques within just one of those more industrialised states (Rio Grande do Sul), but across all sectors, confirmed the guarded but more optimistic message of the above-mentioned study<sup>119</sup>. In the same year a study of 10 firms in various segments of the metals sector also noted a more

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<sup>112</sup> Ibid.

<sup>113</sup> Noted in a study by J. Lobos, Consultores Associados - for Exame magazine, Exame, 4/9/91, pp70-72.

<sup>114</sup> Fleury and Humphrey, 'Human Resources...', (1993). Greater optimism is also expressed in, R. Ruas, J. Antunes and M. Roese, 'Avanços e Impasses do Modelo Japonês no Brasil: Observações acerca de Casos Empíricos' in Sobre O Modelo Japonês, org. H. Hirate, (São Paulo, 1993), pp103-123. Yet, failure due to economic downturn, remains an ever present issue.

<sup>115</sup> Noted by Humphrey, 'Japanese Methods: Evidence from Brasil', p334.

<sup>116</sup> Fleury and Humphrey, 'Human Resources..', pp8-10. Detailed in Chs 2-3.

<sup>117</sup> Ibid., pp33-52

<sup>118</sup> Ibid.

<sup>119</sup> R. Ruas, 'Novos Princípios Gerenciais e a Organização e Gestão do Trabalho', in, Cadernos Técnico, 22, 1995, CNI/SESI, pp19-31.

comprehensive modernisation approach by employers<sup>120</sup>. The application of TQM/JIT systems had clearly begun to go beyond rhetoric and piecemeal application.

Even still, while these changes were significant, firms of this type were still the minority, large scale and often subsidiaries of TNCs. Secondly, changes to occupations, career opportunities, pay structures and levels of involvement were still fairly minimal<sup>121</sup>. Even in the most comprehensive cases, further such changes (especially to stability) still remained largely expectational. Part of the reason for this may have been employer 'reticence' to share productivity gains and decision making. Accordingly, pay did not always reflect new tasks and upskilling opportunities (for example for maintenance tasks) did not always accrue to direct production workers<sup>122</sup>.

Moreover, other early 1990s studies noted that much of the new training that is provided by such firms is linked to the promotion of more positive attitudes to the firm<sup>123</sup>. In addition, it is not certain whether changes to occupational structures represent anything more than just a relabelling of existing schemes – ones based on extreme salary divisions and maximum employer prerogative to reallocate workers and adjust pay rates<sup>124</sup>. Still further, some authors have suggested that the differential treatment of women workers continued to be a part of such 'strategies'<sup>125</sup>. The employment of younger, inexperienced workers would also appear to fit within this sceptical modernisation perspective<sup>126</sup>. While some employers may have begun to take a more long term 'skilling' approach to their employees<sup>127</sup>, critical observations such as these conflict with the views of others who suggest that modernisation could lead to more democratic and participatory workplaces<sup>128</sup>.

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<sup>120</sup> R. Carvalho, 'Coping with Change in the Economy: New Technologies, Organisational Innovation and Economies of Scale and Scope in the Brazilian Engineering Industry', Texto Para Discussão, (1995), 378, IPEA, Brasília.

<sup>121</sup> Fleury and Humphrey, 'Human Resources' Ch 4.

<sup>122</sup> Ibid., pp39-40 and p35.

<sup>123</sup> Noted in Leite, 'Reestruturação...', p577.

<sup>124</sup> See for example, N. Franzoi and M. Rodrigues, 'Beyond Quality' in IDS Bulletin, 'Quality and Productivity in Industry: New Strategies in Developing Countries', (1993), 24, 2, pp53-57.

<sup>125</sup> See A. Abreu, 'Mudança Tecnológica e gênero no Brasil', Novos Estudos Cebrap, (1993), 5 and Leidke, op. cit.

<sup>126</sup> Noted for the late 1980s in Leite, O futuro, Ch. 5 in respect of the more 'modernised' case study.

<sup>127</sup> Argued by M. Fleury, 'The Culture of Quality and the Management of Human Resources', in IDS Bulletin, - Quality and Productivity in Industry: New Strategies, (1993), 24, 2, pp34-41.

<sup>128</sup> Ideas suggested by authors such as, L. Gitahy and F. Rabelo, 'Educação e Desenvolvimento...' and E.

It should also be noted that the positive trends noted in many of these early 1990s studies relate principally to firms concentrated in more industrially developed regions and, the Fleury and Humphrey research<sup>129</sup> (like most others) was not based on any direct evidence from workers. The effects on workers may have been positive as more training was being given, education levels were rising and turnover rates were lower than those of the late 1980s<sup>130</sup>. However, that unions were not being involved continued to signal a more complex situation for worker representation in the future.

In this regard, issues such as outsourcing had been causing divisions amongst academic and union researchers ever since the late 1980s. Some felt that outsourcing would expand the use of technology to smaller employers and that workers in such firms would therefore be given upskilling and responsibility improvements<sup>131</sup>. In contrast, union researchers expressed concern about the possible effects of outsourcing on benefits, salaries, health and safety and work speed and skills - both in outsourcing and supplier firms<sup>132</sup>.

As the 1990s progressed many unions saw the need to devote greater attention to a broader range of modernisation issues, both within their factory strategies and (when relevant) more broadly<sup>133</sup>. In addition, such strategies often became more nuanced and pro-active<sup>134</sup>. This was for two reasons. First, most employers still took a very anti-union stance. Yet workers, while sceptical, noted that they felt that they could benefit from the modernisation process – particularly in terms of key issues such as workplace conditions, stability and training<sup>135</sup>.

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Leite, 'Trabalho e Qualificação: a classe operária vai à escola, I Reunião do GT, Cambio Tecnológico, Calificación y Capacitación, (1993), Red Latinamericana de Educación y Trabajo.

<sup>129</sup> Fleury and Humphrey, 'Human Resources'

<sup>130</sup> Ibid., pp38-39.

<sup>131</sup> See F. Rabelo, 'Automação, estrutura industrial e gestão da Mão-de-obra: O caso de introdução das máquinas ferramentas com comando numérico na indústria metal-mecânica', (1989), Masters dissertation, UNICAMP, Campinas and F. Rabelo, L. Gitahy and M. Costa, 'Inovação Tecnológica, relações indústrias e subcontratação', Textos Para Discussão, 10, (1991), DPCT/IG/UNICAMP, Campinas.

<sup>132</sup> DIESSE, 'Os Trabalhadores frente à Terceirização', Pesquisa DIEESE, 7, (São Paulo, 1993).

<sup>133</sup> As noted in sections 2.3.2 and 2.4.2.

<sup>134</sup> Notable examples are well discussed in L. Bresiani, "Reestruturação Produtiva e Luta Sindical – o trabalho na indústria automobilística brasileira (1980-95)", paper for seminar, 'Estrategias de Lucha Sindical em America Latina', El Colegio de Mexico, 4/95.

<sup>135</sup> L. Bresiani and N. Oda, 'Inovação Tecnológica, Mudança Organizacional e Negociação Coletiva: O Panorama Brasileiro e o Caso do Complexo Automotiva no ABC', in Caderno Técnico – Reestruturação

Despite these reservations about the nature of modernisation and the degree of union inclusion and worker involvement and reward, by 1994 further signs of change in industry were evident from studies by a variety of agencies. For example, in a review of 27 metals firms in the ABC region, the union research group (DIEESE) noted that 30% of firms had or were quickly integrating new automation<sup>136</sup>. The other 70% were doing this slowly. Groups, cells and new skill structures had been introduced by well over half of those surveyed and Kanban/JIT systems were evident in 2/3 of firms. Furthermore, quality schemes or initiatives had been introduced by 30% of respondents and 59% were in the process of implementation. Quality and productivity levels were also rising and turnover rates falling, for key firms in this region.

Moreover, by the end of this period more promising indicators of the effects of industrial modernisation on firms' competitiveness were being noted by management consultants such as Price Waterhouse<sup>137</sup>. This organisation reported significant reductions in lost production time, scrap levels, delivery times and stock levels in Brazilian industry between 1992 and 1994. They also suggested that 61% of large employers had introduced quality and productivity programmes by 1993. IMAN (a Japan inspired employer research group) also reported improvements in equipment set up times, scrap and time waste levels and company hierarchies<sup>138</sup>.

In summary, after the late 1980s there were signs that a growing number of key firms in a broadening range of sectors were beginning to pursue more comprehensive modernisation strategies. Quality and efficiency improvements, changes to work, supervision, training and reduced levels of labour turnover also seem to have eventuated. Yet the continuation of an uncertain institutional setting and authoritarian workplace and anti-union management practices still pervade this context. Many authors feel that these factors will act against further, more positive and comprehensive changes within industry. As noted below, the specifics of this debate provides the issues to be considered within this study.

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Produtiva no Brasil, 22, (1995), CNI/SESI, São Paulo, p47.

<sup>136</sup> See DIEESE, Política Industrial, Reestruturação Productiva e Organização do Trabalho- Indicadores e Informações Relevantes, no. 1, 5/95 for the figures noted below.

<sup>137</sup> Noted in DIEESE, Política Industrial..., (1995), p11.

<sup>138</sup> Noted in Leite, 'Reestruturação ..', p576.

## 2.4.2 Implications for Work and Industrial Relations – specific issues for this study

There is clearly a great level of interest in modernisation strategies (such as JIT/TQM) in Brazil. However, an overriding question which emerges from the literature is, will Brazilian employers continuing efforts to modernise be based on an ‘easy’ or a ‘hard’ route<sup>139</sup>? As noted above, many authors believe that the ‘easy’ or ‘conservative’ form will eventuate and that this is primarily due to contextual factors. Within this view, while companies may embark on company wide changes, minimal adjustments will be made to work and, by implication, worker consent will be the best that can be expected.

However, an alternative interpretation of the ‘easy’ route may be as follows. Due to these same contextual factors, Brazilian management may need to do very little to obtain high levels of work satisfaction, motivation and company allegiance<sup>140</sup>. In either case it appears that, while firms are putting greater effort into persuading workers to be more dedicated and quality conscious, they are just as keen to keep unions out of the workplace. Yet these workplace themes, as with the consideration of union responses, need a much greater degree of analysis.

In pursuit of better answers to this question, authors have also sought to categorise the process by which workplace conditions have changed during modernisation<sup>141</sup>. For example, following the continuum of capital-labour negotiation outlined by Coriat, Humphrey has suggested that many modernising Brazilian employers may be ‘offering’ workers a new but ‘implicit bargain’ of improved conditions (such as stability, training and labour management relations) in ‘exchange’ for higher levels of efficiency, quality and productivity<sup>142</sup>. This effort bargain is stimulated (rather than imposed) and it is implicit as no explicit offer takes place.

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<sup>139</sup> A phrase used by many authors including Humphrey and Leite, *op. cit.*.

<sup>140</sup> As suggested by Humphrey, ‘Japanese Management.. Brazilian Industry’, p773-4.

<sup>141</sup> For example, N. Castro, ‘Modernizacão e Trabalho no complexo Automotivo Brasileiro – Reestruturação Industrial ou Japaneização de Ocasão?’, *Novos Estudos Cebrap*, 1993, 37, p162 & pp172-3.

The nature of a firm's effort-bargain, or even its very existence, will be affected by many factors, including who controls the firm, the state of the local labour market and union traditions<sup>143</sup>. In this regard, early work by Humphrey suggested that the fear of unions, specific skill shortages, poorly developed internal control mechanisms and the location of many of the early modernisation experiments in 'brownfield' sites, may help promote a relatively positive 'implicit bargain' outcome for Brazilian labour<sup>144</sup>. Yet recent work, which has noted the growth in the use of 'greenfield' sites and more sophisticated screening and evaluative processes within modernising firms, suggests that this likelihood may have diminished<sup>145</sup>.

Accordingly, studies must be clear about exactly what issues appear to be involved in the bargain and who is involved. Moreover, studies must evaluate not only the 'objective' links within the modernisation argument but also the types of attitudes (to work, the employer and the union) on which this 'implicit bargain' is based. In these respects, the Brazilian studies reviewed above provide much information on these (subjective and 'objective') links.

These links can be categorised under the headings, skills/tasks, employee relations, employment conditions, worker attitudes and trade union responses. A key way in which this study seeks to build on past Brazilian research about these links is that it compares these issues between partially and comprehensively modernised firms. Moreover, this study combines an examination of firm level modernisation with a depth of evidence from workers and unions not yet evident within the Brazilian literature. This should allow questions such as, is it a 'hard' or 'soft' approach, and subjective aspects of the 'politics of modernisation' (thus the bargain that it entails), to be fully explored for the industry and time period of this study. The specific themes for this research are summarised below.

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<sup>142</sup> Fleury and Humphrey, 'Human Resources', pp36-42.

<sup>143</sup> Factors noted by most authors, e.g. Humphrey, 'Japanese Management.. Brazilian Industry', pp771-773.

<sup>144</sup> As noted and argued in J. Humphrey, 'Japanese Production Management and Labour Relations in Brazil', *Journal of Development Studies*, (1993), 30, 1.

## 1) Skills and Tasks:

Up to the mid 1980s, the 'routinisation' of jobs and the precariousness of employment seemed to be the norm. On the other hand, as was noted above, more recent studies of modernisation have begun to observe rising skill levels and that production workers, in both process and discrete product sectors, are taking on mentally demanding process, evaluative and conceptual duties. These duties may make their work more skilled.

Yet while this could be good news for some workers, other jobs could be in relative decline. The pace and intensity of work, the continuation of high levels of worker substitution and the lack of compensation for new tasks may also be negatives for labour. Furthermore, only in some cases have direct production workers taken on new conceptual and evaluative skills. More generally, the continuation of a separation of programming and machine work or of maintenance and operational duties is not a positive sign. These observations raise the question, have firms really become more concerned about the level of tasks and skills across the shop floor?

What the recent literature has therefore added to the skill debate has been greater emphasis on how skills are combined, the growing use of process and mental skills, work and worker allocation developments and the evaluation and recognition (monetarily and otherwise) of new duties by management. Consequently, when examining factory wide data on work (Chapter 4) this study will concentrate on how skill levels overall have changed, how workers are allocated within the shopfloor and what these suggest about managerial attitudes to skills, jobs and labour allocation. Questions of workers (Chapter 5) will enquire more deeply into the nature of their new manual and conceptual tasks, who has been most affected and whether new skills have been adequately recognised.

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<sup>145</sup> Humphrey, 'Japanese Management..Brazilian Industry', p782.

### Employee Relations:

Driving supervision, rigid hierarchies and the absence of worker involvement have dominated the working lives of most factory workers. Nevertheless, as noted above, some authors have pointed to the use of less bureaucratic, more open structures within Brazilian firms. Some growth in the use of teams, cells, reduced supervision levels, and involvement and suggestion schemes have also been observed.

However, subsection 2.4.1 also suggested that these participatory initiatives may have limits. The scope and significance of issues over which workers have a say may be minimal and tied to the production objectives of the firm. The more optimistic proposition that firms will become more democratic has also been treated with scepticism. More pointedly, decentralised and participatory work systems (e.g. teams) and evaluative procedures tied to involvement may act as more onerous and effective means of controlling worker behaviour than past forms of workplace organisation.

Accordingly, the analysis of firms' employee relations policies in this thesis (Chapter 4) will focus on whether they have adopted policies, structures and workplace practices which promote greater openness and participation. The seriousness and reasons behind such changes will also be investigated through an evaluation of any team concepts, supervisory models and involvement and participation initiatives which firms may have introduced. The analysis of workers (Chapter 5) will seek to show the effect of these changes on their level of responsibility, involvement and autonomy in their work. This will also help to shed light on the issue of whether firms have become more dependent on the behaviour of workers and how they have dealt with such 'reverse dependency'.

### 3) Employment Conditions:

The third link within the modernisation schema relates to the nature of employment conditions. These include non-wage ILM factors such as greater training, career opportunities and employment stability. Wage levels and wage structures are also important issues.

Studies from the early 1980s noted that, even in higher skill industries, Brazilian firms did not need to offer ILM incentives to secure adequate levels of efficiency and productivity. Wages levels were still low in absolute terms, little internal training was offered and turnover rates remained high. Studies up to the mid-1980s confirmed that these and more traditional means of labour control (e.g. the use of women and the fear of unemployment) continued to serve as adequate ‘incentives’.

On the other hand, the recent literature reviewed in subsection 2.4.1 also noted that modernising firms are offering greater internal training. Some are even suggesting the prospect of employment security and career development opportunities. Turnover rates in such firms have fallen significantly. These factors suggest that modernising firms may now be offering many of the employment condition benefits of ILMs to members of their workforce.

However, real wages remain low and administrative regulations (at the least) mean that there may be no genuine moves to introduce pay systems linked to performance<sup>146</sup>. Locating in low wage, isolated areas may allow employers to pay wages above the local labour market average. In such situations, there may seem to be a premium being paid but the wage may still be below that paid by comparable firms<sup>147</sup>.

In terms of the ILM, new occupational and wage structures, while touted as being part of career and mobility initiatives, may (as many suggest) be just a new set of names for a system under which workers can continue to be flexibly deployed. Moreover, firms may continue to offer fewer opportunities to women. Alternatively, firms may use company supported training and the employment of young people to diminish the importance of higher skill groups<sup>148</sup>. Unionists, in particular, may bear the brunt of firms’ new ‘selection’ criteria.

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<sup>146</sup> Under Brazilian legislation, if an additional payment is regularly made on a number of occasions it must then be paid on a more permanent basis. This may deter the development of most forms of performance pay.

<sup>147</sup> Noted for firm ‘B’ in Leite’s study, *O futuro*, Ch 5

<sup>148</sup> Ibid.

It also remains to be seen whether firms can keep to their implicit promises of career development and job security. More significantly, it has been suggested that the linking together of training, career development and worker evaluation with greater worker involvement may help to provide the decentralised, control based employee relations systems noted above. The observation of a number of authors that training appears to be taking on a more firm specific and motivational emphasis may support this sceptical view.

In view of these debates about employment conditions, the analysis of firms within this thesis (Chapter 4) documents the new types of training and education that companies are 'offering' their workers. Selection and job allocation criteria, career schemes and wages, are also considered. Data on the worker sample (Chapter 5) are used to more deeply evaluate the nature of modernising firms ILMs and 'implicit bargain' with workers.

#### 4) Workers' Attitudes:

A key aspect of the modernisation schema relates to the effect of the firm's policies on workers' attitudes. As discussed in Chapter 1, there are three areas for which these are important. First, improved attitudes to work itself may, at the least, reduce turnover and absenteeism. Secondly, improved attitudes to the firm may promote allegiance and behaviour which helps firms be more productive, efficient and reach new levels of quality. Thirdly, unless dual allegiance to both the firm and the union eventuates, the union's 'electorate' may have shifted its needs and representational priorities in favour of the firm.

As noted briefly in section 2.4.1, studies of workers' attitudes during the post 1980 modernisation period suggest a number of ambiguities in relation to workers' attitudes to work, the employer and their union. These important studies are considered in more detail below. First, during the early to mid-1980s so-called 'routinisation' period, one study suggested that workers were divided about the

benefits of new technologies in the workplace<sup>149</sup>. While labourers were often fascinated by the prospect of working with new machines there was a general fear of substitution, powerlessness and competition<sup>150</sup>. This, however, remained a function of how machines were introduced and union traditions.

More specific responses showed even greater variability. For example, the overriding opinion was that work speed was increasing, worker autonomy was declining and supervisory relations were deteriorating<sup>151</sup>. Workers were often exhausted. However, the fear of substitution was less in auto firms and where unions were more active<sup>152</sup>. Secondly, nearly half of the auto workers were positive about skill/qualification, pay and supervisory relations effects, especially as heavy, hazardous tasks had been removed<sup>153</sup>. Yet these opinions mainly applied to the more skilled workers and those who had factory commissions.

On the other hand, there was general concern that skills would not be recognised, high skilled tasks would be outsourced and that, through the employment of younger workers, there would be less recognition and opposition to these changes than there should have been<sup>154</sup>. Moreover, there was suspicion that employers were making productivity gains at the expense of workers and that worker autonomy and liberty (i.e. 'space' to socialise, relax and relate) were being sacrificed in the name of profit<sup>155</sup>. Supervisory relations and work conditions had deteriorated for line workers in particular<sup>156</sup>. However, skilled workers also resented the interference and poor treatment they received from more qualified but less experienced technical staff<sup>157</sup>.

A more recent study (during the so-called 'Taylorised JIT' phase) confirmed many of these findings<sup>158</sup>. However, through a detailed two firm comparison the author was able to highlight ambiguities within workers' reactions in even more

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<sup>149</sup> Abramo, 'A Subjectividade do Trabalhador'.

<sup>150</sup> Ibid., pp161-164 .

<sup>151</sup> Ibid., pp135-138.

<sup>152</sup> Ibid., p138.

<sup>153</sup> Ibid., p141-144.

<sup>154</sup> Ibid.

<sup>155</sup> Ibid., pp145-152

<sup>156</sup> Ibid., pp146-148 and pp152-157.

<sup>157</sup> Ibid., p149.

specific ways. One of the firms (factory 'B'<sup>159</sup>), was a key and large employer in a small, fairly isolated area. The firm was a very paternal, visible, local reference point. Yet it had integrated an extensive array of automated technologies and organisational techniques, in part helped by a quite passive local union. On the other hand, the other firm (factory 'A'<sup>160</sup>) was a less modernised entity in a 'brownfield' site. The active role of the union there was a key reason why the firm was less progressed in the modernisation strategy that it had wished to be.

Both contexts aroused feelings of fear and fascination from workers<sup>161</sup>. The overall impression was of control and domination<sup>162</sup>. Organisational techniques were seen in a more negative light as they permitted a more encompassing form of control over the production process and workers. Technologies, on the other hand, were mainly feared because of how they had been applied.

In terms of specific themes, the effects of these different contexts were illustrated in a number of ways. First, most workers felt that the use of new technologies in their workplace acted to increase work speed, stress and responsibility<sup>163</sup>. However, factory 'B' workers found older machines more interesting to work with while factory 'A' workers initially thought that new machines were more challenging. As discussed below, this may be explained by the different abilities of workers in the two factories to shape the way in which technologies were introduced and applied.

Secondly, due to worker/union agitation, workers at firm 'A' were able to gain both salary and skill improvements due to the introduction of new technologies. As a result, workers were more positive in general<sup>164</sup>. In comparison, workers at firm 'B' were less happy as young workers had been employed to work with the new

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<sup>158</sup> Leite, *O Futuro*.

<sup>159</sup> Analysed in detail in *ibid.*, Ch 5.

<sup>160</sup> *Ibid.*, Ch 4.

<sup>161</sup> General and comparative aspects of the two factory situations are discussed in *ibid.*, Ch 3.

<sup>162</sup> *Ibid.*, pp166-179.

<sup>163</sup> *Ibid.*, pp184-192.

<sup>164</sup> *Ibid.*, pp179-184 on the comparison and for factory 'A' – pp229-235, pp248-252.

technologies<sup>165</sup>. The pay on these machines was no better than on traditional machines in this factory. Yet claims about pay by either group of workers met with the response that they should be content as wages were above the local labour market average.

Thirdly, neither group of workers believed in the ‘message’ that their interests were now one and the same as the firm’s. The way in which supervisors abused the promotional evaluation process and the system of salary scales made factory ‘A’ workers very sceptical of the employer<sup>166</sup>. Workers at factory ‘B’ were also sceptical<sup>167</sup>. However, they were less prepared or able to prevent the introduction of a more formalised evaluative process. Moreover, even fewer promises were made to them that promotion and stability might eventuate than had been made at factory ‘A’.

Finally, workers at both factories were fascinated with the possibilities that new systems offered but felt that the employer would gain most. They deserved more from the process<sup>168</sup>. However, an important difference in their attitudes was that workers at the more strongly unionised factory ‘A’ were more confident that they could and should change matters<sup>169</sup>.

The observations these two studies make provide vital issues on which this study builds. However, without detailed studies which go beyond the 1980s partial modernisation period, a growing degree of comprehensive modernisation may prompt some to suggest that ‘false consciousness’ has a new form. Workers may now be dupes to the quality and participatory strategies of modernising employers.

Consequently, this thesis provides data on subjectivity (in the early to mid-1990s) through the use of detailed interviews with workers in respect to their attitudes to their jobs/tasks (Chapter 5), their employer and their union (Chapter 6). The modernisation debate suggests that workers should be asked questions around

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<sup>165</sup> Ibid., pp275-288 and pp294-298.

<sup>166</sup> Ibid., pp235-247.

<sup>167</sup> Ibid., pp288-292

<sup>168</sup> Ibid., pp198-202 on the comparison; for factory ‘A’ pp253-259; for factory ‘B’ pp299-301.

<sup>169</sup> Ibid., pp314-315.

themes such as - are they labouring harder and smarter and what effects are new technologies and techniques having on their attitudes? Secondly, do they believe the 'message' of the modern employer and that their company's 'implicit bargain' is fair and good? Thirdly, why are they involved with the union and what do they expect of the union now that their firm is modernising?

#### 5) Union Responses:

The analysis of the recent period suggested that Brazilian unions still have to deal with a very anti-union management class. Thus, if workers have been persuaded to put more confidence in their firm, how have unions responded and have they been successful? In accordance with the union literature in Chapter 1 and as elaborated in this chapter, the challenges of modernisation have simply added to the difficult position that Brazilian unions already face, at the workplace and more broadly.

A number of key union bodies have attempted to respond to these workplace and broader political pressures. For example, within the *Câmara Setorial* process a mixture of state assistance and various types of employer and union promises have been used to build an explicit process of change for the auto industry. While this process has met with mixed success<sup>170</sup> many of these same union organisations have also pushed for the inclusion of modernisation issues within a system of collective contracts (*Contratos Coletivos*).

Developments such as these may provide an important 'umbrella' for the many, smaller local unions that exist in Brazil. However, until that is the case, less well resourced local unions may have to find other means to respond to modernisation. Yet, while most studies note the difficulties that local unions face and the experience of the São Bernardo Metalworkers, there are as yet few sufficiently detailed studies of Brazilian unionism at a local level which test union responses to modernisation.

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<sup>170</sup> Well summarised in Castro, 'Modernização e Trabalho', p172-173. See also Bresiani, "Reestruturação Produtiva e Luta Sindical"

Two detailed 1990s studies that have been made suggest that ‘new unions’ are often adjusting their agendas in response to modernisation<sup>171</sup>. These studies also argue that ‘new unionist’ groups are acting in a more representative way. Yet, these studies are either weak on the analysis of the companies<sup>172</sup> or do not adequately integrate workers' views within their analysis<sup>173</sup>. This last mentioned study may also not be very representative as it relates to a large CUT union within a key and highly unionised industrial (steel) establishment in a highly industrialised part of Rio de Janeiro state.

Nevertheless, the situation in most other parts of Brazilian industry is very different than that in São Bernardo or industrial centres in Rio. Non-negotiated industrial relations are still very much the norm. Thus, while some changes are occurring in a few areas, whether this type of identity will or can be emulated remains unclear. More pointedly, it is not even certain whether key unions (e.g. the São Bernardo metal workers) can deliver similar results across other industries (e.g. white goods) or even in other auto firms.

More broadly, as modernisation does not seem to signal a change in companies' attitudes to unions, most authors agree that unions must continue to push and find new strategies which will make the bargain a fairer one for workers. Yet the literature remains divided as to the probability of this occurring<sup>174</sup>. After all, greater sophistication in union policy may simply lead to more refined ‘modernisation’ strategies<sup>175</sup>.

In an attempt to throw more light on these debates, this study of the white goods industry encompasses a number of different types of unionism, factory location and degrees of modernisation<sup>176</sup>. Moreover, the research compares workers’

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<sup>171</sup> See, Mangabeira, ‘Union Politics’ and Morais, ‘New Unionism and Union Politics’

<sup>172</sup> Morais, ‘New Unionism and Union Politics’.

<sup>173</sup> Ibid. Also, Mangabeira, ‘Union Politics’ does use some primary data but this is limited to a few workers and union activists.

<sup>174</sup> Authors such as Humphrey (eg. ‘Japanese Methods: Evidence from Brazil’) and Leite (‘Reestruturação..’) are more sceptical whereas others (e.g. Silva, Refazendo) have been more optimistic.

<sup>175</sup> As suggested by Humphrey, ‘Japanese Management ..Brazilian Industry’, p782

<sup>176</sup> As detailed in Chapter 3 and 4.

views of their union (Chapter 6) with an analysis of how these unions' agendas, interests and systems of representation have changed due to modernisation (Chapter 7). This should give a more balanced picture of the responses and success rate of Brazilian unions that that provided by key union and key sector studies.

## **2.5 CONCLUSION**

This chapters' review of the Brazilian modernisation context has highlighted both continuity and change. Many longstanding rules, procedures and norms of industrial relations continue to influence the behaviour of employers and the fortunes of unions and workers. This is particularly so as the relaxation of political control and organisational regulations have been slow, partial and ambiguous.

Despite a more open political and economic environment, the 1980s and early 1990s has been very difficult for workers and unions. Real wages declined and unstable employment only served to add to a decade of uncertainty and crises. This situation did not help the further development of an independent and unified union movement either.

Within this context it does not seem surprising that the modernisation of Brazilian industry occurred slowly and in a piecemeal fashion. While specifics of the process may differ, this has also been the case in more stable environments. Moreover, the interpretation of the effects of this partial process has been overwhelmingly negative and sceptical, in large part due to the legacy of past workforce conditions, attitudes and regulations.

However, with the evolution of more comprehensive examples of modernisation, commentators have been forced to look more carefully at the linkages assumed to operate between modernisation techniques and firms' achievement of higher levels of quality, productivity and efficiency. This chapter's review of Brazilian studies of these links (i.e. hypothesised changes to – skills/tasks, employee relations, employment conditions, worker attitudes and union responses) broadly confirms the scepticism noted in Chapter 1. Yet there is also the possibility that the Brazilian context

may provide a unique and relatively 'easy' modernisation path for Brazilian employers.

That is, even 'easy' of modernisation may allow employers to secure a new and profitable 'implicit bargain' from workers. The continuation of high levels of managerial prerogative and an unsatisfactory facilitative environment may mean that Brazilian employers have to do very little to gain the levels of behaviour, and maybe even the attitudes, which they require for enhanced quality and efficiency. Nevertheless, this situation, particularly the attitudinal dimension, cannot be adequately explained without detailed evidence from workers.

The combination of firm based analysis (Chapter 4), worker interviews (Chapters 5/6) and the study of union identity developments (Chapter 7) provide the necessary data for such a study. This data will allow the theses' hypotheses to be tested in a very detailed way. A comparison of comprehensive and partially modernising firms, on each of the specific issues identified in this chapter, will give this study an empirically grounded and verifiable dimension. Chapter 4 starts the analysis of this data.

However, as with the industrial relations framework, local and international factors have also been shown to affect the form and outcomes of modernisation. Thus Chapter 4's analysis of the case study firms is preceded by a brief description (Chapter 3) of defining aspects of the case study industry, firms and their local environments. In particular, TNCs have played a key role in the white goods industry. It is important to understand this prior to the more specific evaluation of the case study firms.

## **CHAPTER 3:**

### **THE BRAZILIAN WHITE GOODS INDUSTRY AND THE CASE STUDIES**

#### **3.1 INTRODUCTION**

This chapter has two aims. The first is to summarise key development and modernisation features of the industry (white goods) into which the case study factories fit. The second objective is to familiarise the reader with the case studies and their specific local environments in preparation for the detailed analysis of the factories and their workers and unions in the following chapters.

The first main finding of this chapter is that the Brazilian white goods industry has developed in a particular form due to its development context. Income distribution constraints skewed earlier growth and TNCs continue to play a determining role in the product, market and production focus of the industry. These factors may have a significant effect on the nature of modernisation at the case study sites.

Secondly, as noted in Chapter 2, the Brazilian context is more likely to lead to partial examples of modernisation. Yet, a number of firms in the white goods industry have introduced what appear to be very comprehensive modernisation experiments. Thirdly, even in those comprehensive examples, the nature of the modernisation experience may vary due to the role played by factors specific to each case study location.

The chapter is structured as follows. Section 3.2 provides a brief history of the Brazilian white goods industry. It traces this line of production from its inception and through the case study period. The links between local firms and the international market, and the domestic market crises of the 1980s, receive special attention within this review.

Section 3.3 (ss 3.3.1) isolates key features of work in ‘traditional’ white goods firms and notes the important (but mainly partial) nature of modernisation which

occurred in most firms up to the late 1980s. Having isolated what appear to be partial and comprehensive examples of modernisation for examination as case studies, subsection 3.3.2 provides some brief historical details about each company. Subsection 3.3.3 sets out a number of characteristics of each case study location which may help to explain aspects of the 'politics of modernisation' in later parts of the study. Section 3.4 concludes the chapter.

## **3.2 A BRIEF HISTORY OF THE BRAZILIAN WHITE GOODS INDUSTRY**

### **3.2.1 Origins, Development and Consolidation**

The electro-domestic category can be divided into three groups of products. The first includes small-scale items such as mixers, kettles and toasters. The second encompasses products such as televisions, radios and stereos. The third group - often called 'white goods' - covers larger scale goods such as refrigerators, stoves, washing machines, dryers and dish washers. It is the production of this third group of products that the firms and workers of this research are overwhelmingly involved<sup>1</sup>.

Internationally, many of the basic aspects of white goods technology were developed between the wars<sup>2</sup>. The post-war boom saw rapid growth in sales and in the market penetration of basic white goods products. In Brazil, up to the late 1940s most production was artisanal, fridges were of the kerosene variety and stoves were (and still are) simple structures utilising bottled gas<sup>3</sup>.

However, during the 1950s the importance of this new industry began to be more widely recognised and this quickly began to be mirrored in rising output and

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<sup>1</sup> As a Brazilian industrial subgroup, white goods presently fit in the metallurgical (stoves) and mechanical (fridges, washers, dryers, and air conditioners) categories of the IBGE. Alternatively, they are often considered as one part of a more vertical industrial grouping (electrical/electronics - *eletr/elettrônico*).

<sup>2</sup> H. F. Lima, 'Indústrias Novas no Brasil: Fabricação de Aparelhos Domésticos', Revista Observador Econômico Financeiro, 23, 270, 8/58, p33.

<sup>3</sup> *Ibid.*, for the following summary.

sales<sup>4</sup>. For example, between 1954-55 fridge production grew from 91,000 to 125,000 units and by 1955 22,000 clothes dryers and 471,000 stoves were produced<sup>5</sup>. Moreover, between 1956-58 investment in washing machine productive capacity rose by 50%<sup>6</sup>.

Yet income distribution constraints limited the degree of penetration of most of these products, particularly dish washers and clothes dryers. Other reasons considered to limit growth in the market included the style of the products available (generally large American designs) and the related issue of TNC involvement in the industry. While stove production was firmly in the hands of small-medium sized Brazilian firms, at least 50% of the markets for fridges, clothes washers and washing machines were held by TNCs or their subsidiaries<sup>7</sup>. Yet firms that were to become key local producers (Brastemp, Climax and Consul) were also visible refrigeration producers by the late 1950s.

This strong growth in the white goods market was due to a number of factors. First, post-war growth in industry and incomes prompted higher demand amongst a more urbanising population. This process was assisted by the identification of constraints on growth by a number of national and international commissions and by some of Vargas's development policies during the final years of his second presidency. However, Kubitschek's more organised and consistent policies (1956-61) generated particularly strong growth<sup>8</sup>.

Kubitschek launched his quest for '50 years of progress in five' with decree no. 38.744 in February 1956. With his development plan (the *Plano de Metas*) and by gathering the support of a rural party (the PSD), Vargas's urban labour party (the PTB) and much of the military he was able to push a credible nation building industrialisation process. The plan made use of international capital and it assisted state industry. The effects of development assistance (particularly of *Meta 29* for the mechanical and electrical sectors) had a substantial effect on production by the Brazilian white goods

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<sup>4</sup> See Table A1, Appendix A for an early view of the industry.

<sup>5</sup> Ibid., pp34-36.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> See, M. Benevides, O Governo Kubitschek: Desenvolvimento Econômico e Estabilidade Política,

industry.

The Kubitschek presidency and the *Plano de Metas* were quite successful. Total GNP grew at an average annual rate of 7.6% between 1958 and 1962, industrial output grew at an average rate of 11.2% over the same years and industry rapidly surpassed agriculture as the leading sector in GNP in the late 1950s<sup>9</sup>. This growth was particularly pronounced for new and leading sectors, including white goods<sup>10</sup>. However, debt, inflation and capital stock constraints and social discontent became clear during the final year of the Kubitschek presidency and into the years 1962-64.

Yet between 1967 and 1975 the Brazilian economy grew rapidly again and inflation was kept under better control. Similarly, capital formation and foreign investment levels rose sharply and the economy continued to grow quickly from 1975-1980. For example, industrial output grew by 2.9% p.a. between 1963-67, a massive 12.2% p.a. between 1968-74 and 7.3% p.a. between 1975 and 1980<sup>11</sup>.

Output growth for electrodomestics stayed above that achieved for manufacturing overall between the late 1960s and 1980. For example, electrodomestic sales grew by an average annual rate just over 18% between 1968-74<sup>12</sup> and around 14% p.a. between 1975-80<sup>13</sup>. Over the decade of the 1970s, refrigerator sales alone grew by an average annual rate of 14.3%<sup>14</sup>.

Despite this bullish image there were a number of caveats to this picture. First, much of this growth was achieved because of the protection given to the internal market. Secondly, in the later part of the 1970s and the early 1980s competition

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(Rio de Janeiro, 1976), Ch. 5.

<sup>9</sup> FGV, *Conjuntura Econômica*, various years.

<sup>10</sup> Between 1949-63 metal products gross value added proportion grew from 9% to 12% and that for electrical equipment grew from 2% to 6% - IBGE, *Industrial Censuses*, various years.

<sup>11</sup> FGV, *Conjuntura Econômica*, various years, and W. Suzigan, *Indústria Brasileira: Origen e Desenvolvimento*, (São Paulo, 1986).

<sup>12</sup> Banco Nacional de Desenvolvimento Economico e Social (BNDES), 'Informação sobre o setor de fogões / eletrodomesticos', (1975), p9.

<sup>13</sup> Instituto Brasileiro de Mercado de Capitais (IBMEC), *Características Atuais e Perspectivas da Indústria de Eletro-Eletrônica no Brasil*, vol. 1, Rio de Janeiro, 10/81, pp56-57.

<sup>14</sup> B. Neto et al, 'A Indústria de electrodomésticos de linha branca: tendências internacionais e situação no Brasil', (1992) *Instituto de Economia*, University of Campinas, p107.

declined considerably. This signalled an attempt by firms to consolidate their market shares for what were fairly mature industrial products.

Market consolidation had a number of characteristics<sup>15</sup>. First, a number of firms (e.g. General Electric and Frigidaire) simply withdrew from the market. In other cases, large and medium size Brazilian firms purchased other local producers. For example, in 1976 Brasmotor purchased Consul and in 1982 a smaller company (Refripar) purchased the Climax facility. These changes signalled the division of the Brazilian white goods market between two large groups - Brasmotor and Refripar. This duopoly remained unchallenged until the mid-1980s.

Two other important developments concerned input control and market strategy<sup>16</sup>. With their recent purchases both major Brazilian groups began to attempt to more effectively target socio-economic segments of the market during the early 1980s. Secondly, as firms started to reduce the degree to which they produced inputs internally this led to a greater preoccupation with input supply, price and quality. Most importantly, each group managed to achieve control of a large producer of the most vital refrigeration input - compressors. This issue also prompted greater direct involvement of a number of TNCs within the Brazilian white goods market. This is a key theme dealt with in the next subsection.

### **3.2.2 International Perspectives and Brazilian Linkages**

Between the late 1950s and the late 1970s, one reason local firms came to secure their space in the white goods market was due to the decision of some TNCs to leave this market segment and/or due to a switch in direct foreign investment preferences for faster growth sectors such as autos. However, by the 1980s the international white goods industry had changed considerably and TNCs re-established their financial control of key players in Brazil. This subsection retraces these developments - developments which hold much significance for the market and modernisation focus of 'Brazilian' white goods firms.

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<sup>15</sup> Ibid., pp95-111.

<sup>16</sup> Ibid., pp117-120.

Internationally, white goods producers emerged from three principal areas of industry. Manufacturers of electrical and energy systems (e.g. General Electric, Electrolux), auto makers (e.g. General Motors, American Motors) and producers of other electrodomestic products (e.g. Philips, Whirlpool) all came to produce white goods<sup>17</sup>. The post-war boom allowed this type of expansion.

However, less favourable global economic conditions in the late 1970s helped to dampen the earlier bullish market and produced a number of different strategies by major white goods firms. Reduced domestic demand and a high level of saturation of developed country markets forced some companies to try and segment and secure their existing markets. Other firms left the white goods market and a few combined their market segmentation efforts with a greater degree of internationalisation. These trends, and the financial misfortunes of a number of key firms (e.g. General Electric), left the international side of the white goods market in the hands of two key corporations (Whirlpool and Electrolux) by the early 1990s<sup>18</sup>.

Electrolux made its market expansion intentions clear quite early. It broadened its scope in Europe with the purchase of 49% of the Italian producer Zanussi in 1984 and, in a direct challenge to US producers, it purchased White Consolidated Industries in 1986<sup>19</sup>. Whirlpool turned out to be the only US producer able and prepared to respond to these developments. They continued to invest considerable resources in the North American market, attempting to integrate Canada-US-Mexican operations in the late 1980s<sup>20</sup>. They also combined with and eventually took over (1989) the white goods operations of Philips in Europe<sup>21</sup>. However they, like Techmesh (a major actor in Refripar and controller of SICOM compressors in Brazil by 1983), also decided to pursue a more active role in developing markets such as Brazil.

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<sup>17</sup> Ibid., pp20-33.

<sup>18</sup> Ibid., pp33-35.

<sup>19</sup> Ibid., p39.

<sup>20</sup> Noted in, *Appliance Manufacturer*, 'Dedicated to Majors', vol.42 (5), 5/94, pp4-10.

<sup>21</sup> Neto et al, 'Indústria..linha branca', pp45-49.

Whirlpool and an associate (Sears-Roebuck) had a passive relationship with Brasmotor as early as the 1950s<sup>22</sup>. However, by the early 1980s Whirlpool had a direct ownership of 20% of Brasmotor and 20% of Brasmotor's principal white goods producer Brastemp (60% of which is owned by Brasmotor). By the mid-1980s Whirlpool had increased their direct role in the Brasmotor group with the purchase of another 20% of Brastemp. This growing involvement by Whirlpool undoubtedly allowed the Brasmotor group to purchase Consul in the late 1970s and wrestle control of Embraco (a key compressor facility) from an earlier alliance between Refripar, Springer and Consul.

Both Whirlpool and Electrolux have continued to compete for international market ascendancy into the 1990s<sup>23</sup>. Each company has opened new facilities and purchased others in Europe and the US. For example, in 1991 Electrolux opened a facility in Hungary<sup>24</sup> and in 1992 they started their move towards eventual ownership of AEG in Germany (1994)<sup>25</sup>. Whirlpool opened a number of high technology, non-union sites in the central and southern parts of the US during the early 1990s<sup>26</sup>. Whirlpool also made use of their low cost compressor capacity to buy (along with Embraco) a compressor facility in Italy in 1993<sup>27</sup>.

However, developing country market advantages seem to represent the most promising area for expansion for these international white goods giants. Besides their interest in Eastern Europe, both have made considerable efforts to mark their presence in Asia<sup>28</sup>. They have also continued to expand their interests in Latin America and Brazil<sup>29</sup>. For example, Whirlpool purchased the white goods operations of Philips-

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<sup>22</sup> Ibid., pp45-49, summarises the pre-1990s history of Whirlpool in the Brazilian white goods market.

<sup>23</sup> On their globalisation strategies see, J. Joncsurak, 'Big Plans for Europe's Big 3', Appliance Manufacturer, vol. 43 (4), 4/95, pp26-30.

<sup>24</sup> Industrial Engineering, 'First Fibre to the Factory creates competitive advantage', vol. 26 (11), 11/94, pp24-25.

<sup>25</sup> P. Shearlock, 'Kings of the Big Deal', Banker, vol. 44, 2/94, pp20-24.

<sup>26</sup> Personnel Review, 'Managing Without Supervisors', vol. 23 (2), 1994, pp26-28.

<sup>27</sup> First hinted at in, Estado de São Paulo, 12/8/93, p14.

<sup>28</sup> See, N. McGrath, 'New Broom Sweeps into Asia', Asian Business, vol. 32 (3), 3/96, p22, and J. Palmer, 'Oh boy what a washer', Barron's, vol 74, 26/9/94, pp17-18.

<sup>29</sup> On events described below see, P. Oster and J. Rossant, 'Call it Whirlpool', Business Week, Issue 3401, 28/11/94, pp98-99 and J. Jancsurak, Appliance Manufacturer, vol 43 (2), 2/95 - 'Addressing Diversity' (p42), 'Customers for Life' (pp36-37) and 'South American Sales Co. - Linking the America's and Europe' (pp38-39).

Argentina in 1991. In 1993 they established Latin American wide sales and service companies to co-ordinate Whirlpool/Brasmotor strategies in the region. The role of Whirlpool in the Brazilian market is even clearer when it is noted that, in 1992, Whirlpool controlled 52% of Brastemp on a combined direct/indirect basis. Similar calculations for Consul and Embraco are 71% and 81%, respectively<sup>30</sup>.

Electrolux, while slower to move in this market, has not ignored its potential. In a very recent move, the Swedish giant bought control of the second largest part of the Brazilian white goods market (for fridges, freezers, air conditioners and microwaves) via its purchase of the Refripar group<sup>31</sup>. This move also gave Electrolux a major part of the other large Brazilian compressor producer (SICOM).

The Brazilian white goods market thus appears to be dominated by two major international producers. This has a number of important implications for the focus of white goods production in Brazil. First, Brazil has become a major base for the production of compressors<sup>32</sup>. For example, between 1976 and 1981 Embraco increased production from around 500,000 to approximately 5 million units. In 1986 Embraco exported 67% of their output and SICOM 30%. Both operate at close to 100% capacity and in 1993 Embraco (now the world's second largest producer) exported nearly 80% of its output, most of which continues to go to Whirlpool in the US.

Secondly, it appears that these TNCs have also gained control of important final product growth areas, leaving less promising products (such as stoves and kerosene fridges) to local producers. The two 'Brazilian' groups and their international 'partners' appear to be concentrating on two final product strategies - microwaves for export to all markets (through their assembly facilities in the Brazilian free trade zone - Manaus) and the potential of Latin America as a place to produce and sell their fridges, washers and dryers. After all, if growth resumes (particularly on a more equal basis) Brazil alone represents a very strong potential market. Even in the late 1980s, 40% of

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<sup>30</sup> Neto, 'Indústria..linha branca', p117.

<sup>31</sup> Appliance Manufacturer, 'Electrolux buys controlling stake in Brazil's second largest OEM', vol 44 (3), 3/96, p14.

<sup>32</sup> Embraco and SICOM are well discussed in, Neto, 'Indústria ... linha branca', Gazetta Mercantile, 23/3/92, and A. Neto, 'Appliances: Hermetic Compressors for the World', Institutional Investor, vol.

Brazilian homes did not possess a fridge, this figure being even higher for the other products<sup>33</sup>.

In summary, the modernisation of Brazilian white goods production will be strongly determined by the two TNCs' market strategies and reasons for locating in Brazil. This may have both positive and negative implications for work/labour processes and industrial relations in the Brazilian facilities - themes which are dealt with in detail in Chapters 4-7. The next subsection looks at how the crises and uncertainty of the 1980-92 period affected white goods production and the key white goods producers. This helps to explain the nature of modernisation in this industry during the case study period.

### **3.2.3 Uncertainty and Crisis: The Brazilian White Goods Industry in the 1980s and 1990s**

The metals industry, particularly the mechanical sector, was very seriously affected by the two recessions (1981-83; 1991-92) to occur between 1980 and 1994. Overall, the years 1984-86 saw high industrial output growth rates. Nevertheless, the serious recession which hit the economy in 1991-92 reversed the recovery which had been made in these years. For example, while industrial product rose from an index of 89.6 to 107.8 between 1981-86 it fell from a high of 108.9 in 1987 to a low of 91.7 in 1992<sup>34</sup>. As noted in Table 3.1 below, the metallurgical, electric equipment and mechanical sectors closely followed (or dipped below) this overall trend.

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29 (10), 10/95.

<sup>33</sup> IBGE, *Household Survey*, 1986. - noted in J. Toledo, 'Automação microeletrônica na indústria de bens duráveis: O setor de linha branca', DIEESE/FINEP, (1989), p9. A point still recognised by the companies in their recent plans - Joncsurak, 'Big Plans..', pp26-30.

<sup>34</sup> See Chapter 2, Table 2.1.

**Table 3.1: Industrial Output Indexes, (1980=100); 1980 -92**

Year	Metalurgy	Mechanical	Electrical
1980	100.0	100.0	100.0
1983	77.9	57.6	77.4
1986	106.6	92.1	115.1
1989	108.6	91.9	113.7
1992	88.9	62.0	87.6

**Source:** Instituto Brasileiro de Geografia e Estatística (IBGE), Industrial Survey, 1980-94

Sales for most white goods products reflected these cycles in economic activity<sup>35</sup>. Overall, white good sales declined by 20% between 1981-84, they increased by about 11% during 1985-86 but fell again thereafter<sup>36</sup>. The years 1991-92 witnessed a 30% decline in overall white goods sales<sup>37</sup> and even greater losses for the main products in question (Table 3.2 below).

**Table 3.2: Selected Electrodomeestic Sales; 1991-92**

Electrodomeestic Product	Sales - '000's Units Jan.- July, 1992	% Change in Sales Jan. – July ;1991-1992
Clothes Dryers	59	-80
Dishwashers	49	-57
Freezers	146	-50
Refrigerators	720	-46
Clothes Washers	197	-43
Stoves	1000	-22
Microwave Ovens	-	0

**Source:** Neto et al, 'Indústria..linha branca..', p131.

For fridges, a major product of this sector, sales fluctuated wildly. Over the decade as a whole, sales declined by an average of 0.6% p.a.<sup>38</sup>. The period 1991-92 represented the largest fall in demand ever experienced<sup>39</sup>. Consequently, using refrigeration as the example, installed production capacity (see Table 3.3 below) was in

<sup>35</sup> See Appendix A, Table A2 (sales/demand) and A3 (market structure) for a detailed view of this industry over 1985-93.

<sup>36</sup> Neto, 'Indústria..linha branca', p102.

<sup>37</sup> Ibid., p100 and 107.

<sup>38</sup> Ibid., p98

excess of two times 1992 market demand (1.7 million units) by 1993<sup>40</sup>. A similar situation existed in respect to other products such as washing machines<sup>41</sup>.

**Table 3.3: Refrigeration Production Capacity, units p.a; 1992-3**

Company / Factory	Productive Capacity – Units
Consul – factory II	1,290,000
Consul – factory III - July 1993	450,000
Brastemp	810,000
SUB-TOTAL – Brasmotor Group	2,550,000
Refripar	850,000
Climax	500,000
SUB-TOTAL – Refripar Group	1,350,000
GRAND TOTAL:	3,900,000

**Source:** Neto et al, 'Indústria..linha branca..',p144.

The severity of this recession left most producers with major over capacity problems and led to major employment losses across their operations<sup>42</sup>. This was in spite of the fact that the uncertain demand since the mid-1980s had already encouraged producers to take other steps to hold up flagging sales. These steps included the introduction of more energy efficient products, the greater use of plastic inputs, massive advertising campaigns and smaller products<sup>43</sup>.

However, the largest single factor which threatened Brazil's largest producer (Brasmotor) was the entrance of a small Brazilian producer (Enxuta) into the market<sup>44</sup>. In 1981 Enxuta launched a very simple, vent clothes dryer. In 1984 and 1985 they started producing compact dishwashers and the more complex (but still small and cheap) clothes washer. Starting from nothing in 1980 the company managed to gain 28% of the clothes washer market, 48% of the dish washer market and 67% of the

<sup>39</sup> See *ibid.*, p100 and Table 3.2.

<sup>40</sup> *Ibid.*, pp139-145.

<sup>41</sup> *Ibid.*, p136.

<sup>42</sup> See *ibid.*, pp127-134.

<sup>43</sup> For examples see, *ibid.*, pp149-159.

<sup>44</sup> For background on Enxuta see *ibid.*, p159 and pp105-106, and subsection 3.3.2.

clothes dryer market by 1989 (Table 3.4 below). Prior to this Brasmotor had supplied 80% of the clothes washer market and the lion's share of dishwashers and clothes dryers<sup>45</sup>. Brasmotor also lost an important share of the refrigeration market to other producers during this period <sup>46</sup>.

**Table 3.4: Market Shares, Washers and Dryers, Brasmotor and Enxuta; 1989/92**

FIRM / Product	1989	1992
<b>BRASMOTOR</b>		
- Clothes washers	60.2%	55.3%
- Dishwashers	46.7%	39.9%
- Clothes dryers	23.1%	14.5%
<b>ENXUTA</b>		
- Clothes washers	28.1%	32.7%
- Dishwashers	47.7%	45.4%
- Clothes dryers	67.0%	57.6%

**Source:** Derived from, Neto et al 'Indústria...linha Branca', Table II.11.a, p105, Table II 11.b, p106 and Table II 11. C, p106.

It was not until Brasmotor seriously began to modernise their products and operations and reach further down into lower income segments of the market that they arrested this situation. Their principal moves involved the establishment of an ultra-modern (Whirlpool inspired and assisted) facility for the production of compact clothes washers, dryers and dish washers in the interior of São Paulo state (Brastemp-Rio Claro, 1989-90) and the opening of a state-of-the-art refrigeration factory at Consul (1992). However, 1992 also saw the company embark on the gradual modernisation of their old refrigeration factory (factory II) in São Bernardo and the articulation of a new human resource policy - the 'Vision'. Ironically, they were only able to recover some of their earlier domestic market share within the reduced market of 1993.

Nevertheless, these developments represented more positive and offensive responses compared to a traditional 'downsizing' approach. The case studies chosen for this study seek to compare such apparently comprehensive examples with more partially modernised firms. Accordingly, the next section highlights specific modernisation trends across the white goods industry between 1980-92 and how this has helped to determine the selection of case studies. It finishes with a description of

<sup>45</sup> Market shares for 1984-89 are shown in *ibid.*, p187.

<sup>46</sup> By 1990 the Brasmotor group also lost 14% of its fridge market and 6% of its freezer market to

these case study firms and a discussion of regional factors which might also influence the nature of modernisation at each location.

### **3.3 WHITE GOODS MODERNISATION AND THE CASE STUDIES**

#### **3.3.1 Modernising White Goods Production**

As noted for industry overall in Chapter 2, prior to the late 1980s the process of modernisation in the white goods industry was also very piecemeal and slow. Technologies remained fairly basic and the penetration of new technique use was so slow that few changes to work were made. However, some firms embarked on more methodical projects of change by the 1990s.

For example, studies of pre-1989 developments across the white goods industry suggest limited changes in the use of new techniques and automated technologies in the production process<sup>47</sup>. Reduced stock levels and the assurance of a given level of quality appeared to have been the principal imperatives of producers. Thus stock and scrap control were important functions, as was quality at source for key processes such as plastics forming and painting.

Within the traditional white goods production process, plastic injection (and then painting) were the first areas to be considered for microprocessor based modernisation. Cutting and piece preparation were manual and electromechanical and did not appear to warrant major changes to their rigid processes. Production lines began to become more automated and firms were starting to experiment with NC/CNC machines in tool rooms and think about CAD in design. However, the use of these technologies remained limited, phosphating/oxidising operations remained noisy, dirty and hazardous (like most paint areas) and few integrated lines were installed within the production process.

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Refrigar, a group who produced cheaper, smaller products – *ibid.*, p108 and 151.

<sup>47</sup> Made clear at interviews. See also, DIEESE, 'Brastemp: produtos modernos, arcaicas relações de trabalho, *Trocando em Miúdos - Informativo Sócio-Econômico*, no. 7, 7/88, pp31-38, and Toledo, 'O setor de linha branca'.

In addition, white goods firms traditionally employed many quality inspectors<sup>48</sup>. These workers spent their time checking samples of inputs and the final product. However, during the mid-1980s some of these functions began to become integrated into the tasks of direct production workers. This growing self-inspection process was facilitated by experimentation with JIT/Kanban systems by a number of firms. A few firms even tried to integrate statistical process control (SPC) and new (but basic) machine maintenance tasks into the jobs of some direct production workers. Yet, as with earlier quality circle experiments, firms did not expand these efforts to all possible areas and workers. Further, multiskilling did not appear to be an issue and teamwork, when it did emerge, was still based on the existing division of responsibilities.

In summary, during the 1980s a number of important (albeit partial and non-integrated) efforts were made within this industry to improve efficiency, quality and productivity. However, almost all of the changes that occurred mixed old and new technological and organisational forms and no substantive company wide changes to structures or employee relations appeared to emerge. Like many other industries, cost control dominated this incipient process and workers appear to have been given limited skill and responsibility improvements.

However, after the late 1980s key white goods firms brought on stream a number of more integrated modernisation projects<sup>49</sup>. These included, Prosdócimo's new freezer facility (1991), the Brastemp-Rio Claro compact washer and dryer factory (1990), Consul's third refrigeration factory (1992/3), and the Brasmotor human resource 'Vision' (1992). Each of these projects are unique in form. However, each also represented a considerable advance on past practice.

In view of the need for comparability of product, production process requirements and firm size, the choice of case study factories came down to the following. On a product and firm size basis, the comparison is made between

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<sup>48</sup> Ibid.

<sup>49</sup> Clear from J. Gonçalves and C. Dreyfus (coords.), Reengenharia das Empresas –Passando a limpo, (São Paulo, 1995), Appendix 1, company interviews (independently) and with Neto et al, 'Indústria...linha branca'.

Brastemp-Rio Claro and Enxuta (washing products) and between Brastemp-São Bernardo and Consul (refrigeration). Combining both product groups, the comparison is made between the two more recent facilities (Brastemp-Rio Claro/Consul III) and the three older factories (Brastemp-São Bernardo, Consul II and Enxuta). This choice of factories also appears to fit the desire to compare comprehensively and partially modernised factories.

Furthermore, Brasmotor's human resource strategy is also analysed as the 'Vision' is a unique managerial development and should be observable at three of the four case study firms - Brastemp-Rio Claro, Brastemp-São Bernardo and Consul - as they are all part of the Brasmotor group. However, specific local characteristics of each region and factory may modify the 'Visions' application between sites, a point noted by Brasmotor itself. In preparation for the detailed case study part of this research, the last parts of this chapter present a brief outline of the history of each company and of the regions where each factory is located.

### **3.3.2 The Case Study Firms**

#### **i) Washing Products**

##### **Enxuta<sup>50</sup>:**

Enxuta was founded and began operations as a metal products producer in 1952 under the name 'Metalurgica Triches Ltda.'. Under the direction of the founder and principle share holder, P.Triches, the company purchased (1982) a local two man operation who were trying to assemble air vent clothes dryers and it was from here that the company began its entrance into the white goods market. In July 1984 the company secured limited liability under the name of 'Triches S/A' and in 1991 it became simply 'Enxuta S/A'.

While Triches family interests include a wide range of other enterprises it was the success of its three principal white goods products (vent clothes dryers, dish and

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<sup>50</sup> Summary below based on interviews, the company's response to the management questionnaire and a BNDES evaluation of Enxuta, 13/7/90.

clothes washers) that set it apart as an innovator. With the national success of its football team –‘Enxuta’- the change in company name made wise commercial sense. On the basis of its meteoric growth between 1983 and 1985 the company invested in a large (25,000 square metre) complex in the new industrial zone on the outskirts of the city of Caxias and this was opened in 1986.

### **Brastemp-Rio Claro<sup>51</sup>:**

Brastemp-Rio Claro formally began operations in 1990 and is 100% owned by the Brasmotor holding company. Brastemp's factory I in São Bernardo had produced large, more expensive models of washers and dryers plus stoves. However, with the dramatic entrance of Enxuta, the obvious market premiums put on space and price and then the market collapse (plus union ‘difficulties’ in São Bernardo) the company swiftly shifted production to a ‘greenfields’ site in Rio Claro.

The first product to be produced was the clothes washer (1990) and in 1992 they began producing dryers and dishwashers. Compared to the former São Bernardo plant, Brastemp-Rio Claro is ultra modern, orderly and planned in its organisation and layout. It is located on 27,000 square metres of land in the new Rio Claro industrial district, just on the outskirts of town.

### **ii) Refrigeration**

#### **Brastemp-São Bernardo<sup>52</sup>:**

The present Brastemp-São Bernardo operations were founded under the Brasmotor name in 1945. Between that year and 1949 the company principally distributed Chrysler vehicles and Philco electronic products. In 1949 this single factory (factory 1) commenced assembling Chrysler truck chassis and cars and in 1951 the assembly of Volkswagen vehicles. The year 1951 also saw the company start the assembly of large American style refrigerators. In 1954, with the imminent market entrance and preferential treatment of automobile TNCs, the company left the auto

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<sup>51</sup> Summary below based on interviews, the management questionnaire response and Brastemp, *Lavadora Brastemp Mondial*, (Rio Claro, 1992).

<sup>52</sup> Summary below based on, interviews, management questionnaire, Neto, 'Indústria...linha branca', pp134-137, and DIEESE, 'Brastemp: Produtos modernos..'

industry and began expanding refrigerator production, later moving onto washing machines, dryers and stoves - all in that same facility.

In 1975, with the opening of a 'state of the art' refrigeration factory (factory II), the company began expanding production considerably, separating refrigeration and washing products between the two plants. Yet until they began revamping this plant (in 1992) the factory had become very old, crowded and obsolete by the 1990s. This factory, which sits on 33,000 square metres of the São Bernardo complex, is the one which is being compared with Consul in this thesis.

However, the complexity of Brastemp's total operations (and Brasmotor's role) go beyond this factory. First, the São Bernardo site also includes a separate tooling room/advanced engineering product development centre (ADC). This centre works not only for the São Bernardo facility but also for other Brasmotor operations (e.g. Brastemp-Rio Claro). A central Brastemp Administration Centre (CAB) and Brasmotor operations in São Paulo also have some importance to operations at this and other Brasmotor plants.

### **Consul<sup>53</sup>:**

In 1947 a Santa Catarina inventor (Rudolfo Stutzer) joined with a number of friends to improve and fabricate the model of kerosene fridge he had designed. In 1950 Consul was formed, producing 22 (kerosene and absorption) fridges in that same year, using artisanal techniques in their small Joinville workshop. With the financial and research backing of local government and prominent local figures, within 10 years they were producing 20,000 fridges p.a. from what is now the old factory I in the centre of Joinville. In 1963 they acquired 220,000 square metres of land in the industrial district just outside of town for the construction of the site upon which factory II, III and all present administrative, research and operational activities are now centred.

In 1970 the (still independent) Consul company inaugurated factory II on an initial area of 13,600 metres and with a capacity to produce 1200 fridges per day. In

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<sup>53</sup> Summary below based on, interviews, the management questionnaire, Consul, 'A História da Consul' (internal company document), Folha de São Paulo, 'Informe Publicitário/Consul', 25/12/92,

1971 they started producing air conditioners and with the continuing assistance of Danish advisors they decided to tackle their dependence on imported compressors via the construction of a compressor factory (Embraco). Difficulties experienced with this project were alleviated when Brasmotor took over Consul in 1976.

The late 1970s and 1980s saw a new surge in product, production and process improvements plus a revitalised export drive, already started in the early 1970s via kerosene and compact models. In 1993 the old factory I was closed and the compact model integrated into factory II. Building on their now more direct links with Whirlpool, in July of the same year factory III was opened on 30,000 square metres of the same industrial site. The factory is quiet, clean, fully automated and streamlined for production and quality efficiencies. Many of its new product and process technologies cannot be seen in any of the other white goods producers in Brazil.

### **3.3.3 Comparing the Case Study Locations**

The four case study firms, while all in the industrialised south-east, are in four very different locations in Brazil (see Map at the end of chapter). The following discussion (and Table 3.5) isolates the case study sites on the basis of three key features isolated by the literature – the level of TNC involvement, local economic structure and the regions' union history. These factors may prove to be important to the form of modernisation attempted in each location.

**Table 3.5: Regional Characteristics of the Case Studies**

Firm / (Place)	Locational Type	TNC Links	Local Economic Structure	Metals Unionisation/ Union History
More Modernised:				
1)Brastemp (Rio Claro):	‘Greenfield’	Strong / direct	Minimal industry/some traditional manufacturing	35% in metals Minimal militant history/ some 1980s resurgence
2)Consul III (Joinville):	‘Brownfield’ but separate	Strong / direct	Moderately important manufacturing area	45% in metals. Minimal militant history/ 1980s militancy/1990s moderated
Less Modernised:				
1)Enxuta (Caxias):	New location in old area	None	Regionally important industrial base	30% in metals. Traditional conflict of conservative and communist groups in union
2)Brastemp- (São Bernardo):	‘Brownfield’	Strong/indirect	Key concentrated industrial base	50% in metals. Long history of militancy and co-ordinating role
3)Consul II (Joinville):	‘Brownfield’	Strong/indirect	Moderately important manufacturing base	45% in metals. Minimal militant history/ 1980s militancy/1990s moderated

**Sources:** Observation, interviews and Appendix B – The Case Study Context.

i) Location and TNC involvement:

The literature suggests that modernisation will be more comprehensive at 'greenfield' sites and where TNC links are strong. As noted in Table 3.5, the preliminary categorisation of the case studies seems to bear these observations out. The firms that appear to be the most modernised do seem to have located in 'new' sites and their links with Whirlpool are strong.

However, these observations are not so clear cut. For example, the ultramodern Consul III may be separated but it is not in a 'greenfields' area and the 'old' Enxuta factory has used a new location for its present operations. Secondly, the more traditional factories of Brastemp-São Bernardo and Consul II also have strong TNC links.

ii) Location and local economic structure:

The case studies also appear to confirm the suggestion that modernisation will be most developed in areas with a minimal history of industry and lower average wage levels. In terms of the refrigeration producers, both regions experienced massive population and industrial growth between 1950 and 1980<sup>54</sup>. Yet besides the obvious locational advantage of having Embraco across the road from Consul in Joinville, there are a number of important differences between the economies and labour markets of these two regions<sup>55</sup>.

First, while both are very important industrial regions in their areas, São Bernardo is the largest industrial region in the most industrialised Brazilian State (São Paulo). Secondly, São Bernardo has a stronger history of metals production than Joinville. São Bernardo also has a history of higher wage levels than does Joinville. While a smaller proportion of industrial activity is in the metals sector in Joinville,

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<sup>54</sup> The below 1980 comparison of the regions is from Appendix B, Tables B1 and B2. Additional material on Joinville from - Joinville Prefeitura, *Joinville - Vida e Negócios* and FIESC, *Expressão - Economia e Empresas*, 1/3, 5/90. Additional material on São Bernardo from - DIEESE, 'Indústria Eletro-Eletrônica', (São Paulo), 21/2/91.

<sup>55</sup> See on the following points, Appendix B, Tables B1 and B2.

Consul and Embraco are very visible as two of the nine largest companies in the region. These factors may also help explain Joinville as a locational choice for a state-of-the-art plant.

In terms of the washing product producers, Caxias do Sul has a longer history of industrial development than Rio Claro<sup>56</sup>. Due partly to the effect of early railway developments, by the 1950s Caxias was already one of the most important manufacturing centres in Rio Grande do Sul. With the vehicles boom and strong growth through the 1960s, both local and TNC manufacturers located in the municipality.

Rio Claro, on the other hand, was an insignificant industrial centre up until the late 1950s. At this time the establishment of a number of agricultural machinery makers and food product manufacturers started a change in the area's economic structure. General growth and improved transport and electricity systems gave this an added spur into the 1960s and 1970s.

In 1980 Caxias was not only a larger town than Rio Claro but it was also a much more significant industrial centre, especially in relation to its respective state<sup>57</sup>. For example, 46% of the Caxias workforce was engaged in manufacturing compared to 17% in Rio Grande do Sul State. The corresponding figures for Rio Claro and São Paulo State are 26% and 30% respectively. Caxias continues to be a much larger industrial area with larger firms than Rio Claro. The above factors may have made Rio Claro a better choice for the location of an advanced production facility.

In addition, while wages in Rio Grande do Sul state are historically lower than in São Paulo state, earlier figures suggest that there may be little difference between average wage levels in these two regional towns<sup>58</sup>. Moreover, these two case studies

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<sup>56</sup> The summary below draws on Appendix B, Tables B1 and B3. Additional material on Caxias - CIC, *Boletim Técnica*, 2/93, discussions with CIC staff (Sr. Bulla), CIC, *Caxias do Sul- Perfil Sócio Econômico*, 12/92, J. Onzi, 'Risultati socio-economici e prospettive della regione di Caxias do Sul', *Dimensioni dello sviluppo*, 1992, 3, 4, pp234-252. Additional material on Rio Claro from discussions with FIESP/SESI staff (Sr. J. Pimental) at Rio Claro.

<sup>57</sup> See on the following statistics, Appendix B, Tables B1 and B3.

<sup>58</sup> Ibid.

stand out in other respects. For example, Brastemp-Rio Claro is much larger than the average local metals firm and they offer a type of work ambience not previously seen in this region. In comparison, Enxuta is considerably smaller (and much less advanced) than a number of other conspicuous local metals firms.

iii) Location and unionisation:

On the other hand, there is not a great deal of difference in metals market unionisation rates within the regions covering the case study sites. For example, *sócio* membership of the local metals union ranges from an estimated 35% - 45% in the regions where the case study firms are more modernised compared to an estimated 30% - 50% in the regions where the less modernised case studies are located. However, the level of militant unionism is (Brastemp-São Bernardo) or has been (Consul II/Enxuta) much greater at the older sites.

As with factors such as TNC involvement and local economic structure, a choice by firms to locate on this basis would appear to confirm a sceptical interpretation of modernisation in Brazilian industry. Yet an evaluation of precisely how any of these factors may have affected the specific form of modernisation at these sites is not possible on the basis of this overview. These issues are considered more fully in the following chapters.

### **3.4 CONCLUSION**

From humble beginnings in the 1950s, by 1980 the Brazilian white goods industry had grown considerably, producing a wide range of products for an expanding market. However, despite its appearance of strength, a number of factors illustrated its fragility during the 1980s and early 1990s. First, the 1980s saw aggregate demand slump and two serious recessions - crises of a magnitude not experienced before. These slumps were accentuated by the relaxation of previous protective policies and by some opening of the economy to greater import competition. The lack of competitiveness of Brazilian industry began to become more openly obvious and white goods production

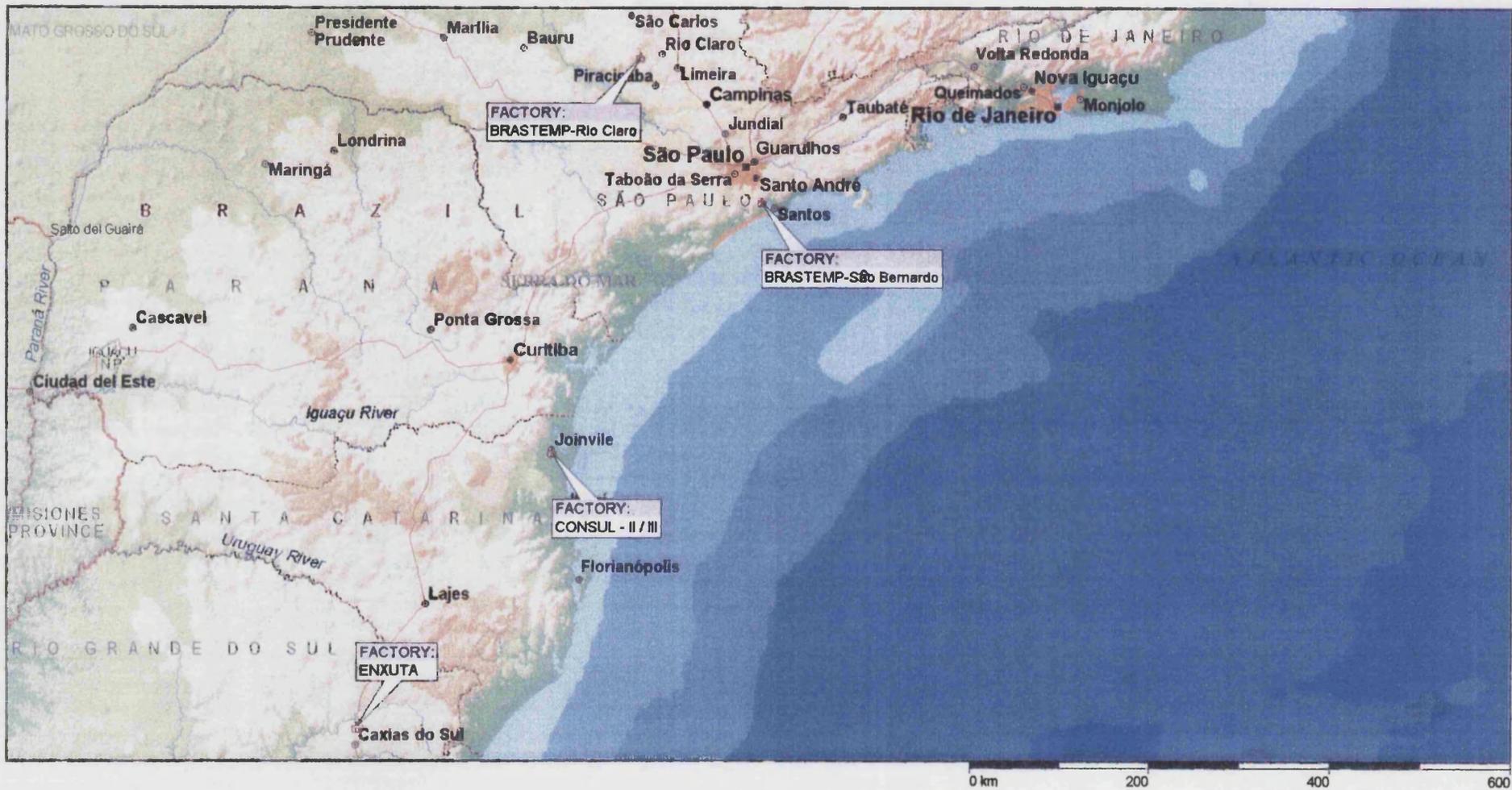
was no exception.

Despite this context, during the late 1980s Brazilian industry slowly and cautiously began to modernise their operations by the integration of new automated technologies and organisational and management techniques. The white goods industry, while not a leader in change, was one of those discrete product industries to embark on this process. However, the dominance of cost considerations and traditional attitudes by most employers meant that modernisation policies were sporadically applied and not integrated. Moreover, employer strategies offered quite clear limits to the degree to which work/labour processes may change.

Despite the 1991-92 recession, a number of more comprehensive white goods modernisation projects came on stream at this time. Compared to the traditional operations of relatively recent domestic producers (Enxuta) and established factories (Brastemp-São Bernardo), tailor-made facilities at Brastemp-Rio Claro and Consul and the human resource strategy of the Brasmotor group (the 'Vision') appear to signify quantum changes to traditional Brazilian management techniques and workplace systems. On the surface these changes represent examples of industrial reorganisation much closer to the ideal type suggested by modernisation optimists.

Nevertheless, it is not yet sufficiently clear whether and how the TNC and local contexts may be affecting production strategies, work systems and industrial relations. For example, regional factors may act to limit change at one or a number of the case study plants. On the other hand, the dominance of TNCs within these case studies may hold both positive and negative implications for labour, organised or otherwise.

However, few studies of Brazilian industry have tested these themes using a mix of detailed production process analyses and primary data on work and industrial relations as is done in this thesis. No such study of this type has been carried out on the Brazilian white goods sector in any period. Part B of this thesis analyses the companies and the work experience of a sample of their labourers. Its first chapter (Chapter 4) begins this analysis through a detailed review of the modernisation which has occurred within the case study companies introduced in this chapter.



**MAP : SOUTHEASTERN BRAZIL  
CASE STUDY FACTORIES AND THEIR LOCATIONS**

**PART B:**  
**MANAGEMENT CHANGE AND THE TRANSFORMATION**  
**OF THE WORKPLACE**

## **CHAPTER 4:**

### **MANAGEMENT IN TRANSITION - NEW IMPERATIVES AND OUTCOMES**

#### **4.1 INTRODUCTION**

The first aim of this chapter to analyse what modernisation looks like within the case study firms. In this regard, Chapter 1 noted that modernisation can be broken down into two areas – management and workplace change. It also argued that, in the case of the ‘Japanese/lean production’ model, this involves the application of TQM, JIT and associated technologies and techniques, closer and more open employee relations and more generous employment conditions. When well developed and integrated, these policies will assist the achievement of smooth production flow, quality products and continuous improvement. This chapter’s analysis is guided by these observations and by the specific Brazilian themes noted in Chapter 2.

The second aim of this chapter is to document what effects the firms’ policies have had on performance outcomes. Optimists claim that comprehensive modernisation will lead to improvements in quality, productivity, turnover and absenteeism. For workers, higher overall skill levels and wages and reduced levels of supervision are expected to eventuate. The third aim of this chapter is to shed light on what this analysis suggests about managerial intent and the influence of external factors on their strategic decisions.

On the basis of an analysis of the case study firms’ processes and outcomes, this chapter confirms Chapter 3’s presumption that it is valid to group the case studies into a comprehensive and a partially modernised group. Accordingly, this same categorisation of the firms will be used in the rest of the thesis. Secondly, while requiring deeper consideration (Chapters 5/6), in the comprehensive side of this dichotomy there appears to be a new ‘implicit bargain’ between workers and their firm. This may be due to the greater degree to which these firms have to rely on the skills and motivation of their employees. Yet, as with the nature of modernisation, the components of this bargain differ between the two comprehensive modernisers.

Thirdly, despite this dichotomy between the firms, local, industrial relations and TNC factors have had an effect on the form of modernisation and the balance of the 'implicit bargain'. Wages remain low, there are clear limits to the openness and generosity of workplace changes and most unions can and have been easily marginalised. Moreover, while the integration of Whirlpool's management principles may improve Brazilian workers' conditions compared to the past, their control of the international market may limit further developments by Brazilian firms, relative to the optimistic hypothesis.

In summary, the comprehensively modernising factories appear to be using an 'easy' path to change. The theoretical possibility of employers' greater dependence on workers has been averted by the way in which workplace changes have been applied and for whom they apply. Even when the overall form of the firm looks very comprehensive, managerial intent can be questioned and the influence of context is considerable.

Following the typology noted in Table 4.1 below, this chapter is structured as follows. Section 4.2 deals with management principles, organisational structures and market strategies. Section 4.3, on the other hand, evaluates the changes which have occurred at the workplace. The section first examines the traditional production process (4.3.1) and then the organisational and technological changes which have occurred at the case study firms (4.3.2).

The firms' task, employee relations and employment condition policies are set out in subsection 4.3.3. Key themes reviewed are - new work requirements and structures, training and education, supervisory changes and career and participation opportunities. Wage levels, a key (but not sole) measure of reward are also considered.

Section 4.4 evaluates the (company wide) outcomes of these modernisation developments. Subsection 4.4.1 compares the different levels of productivity, efficiency and quality the firms have achieved. The polemical debate about the effect of

modernisation on skills is also considered (4.4.2)<sup>1</sup>. The final part of the analysis (4.4.3) examines inter-firm differences in labour turnover and absenteeism. Section 4.5 summarises and concludes the chapter.

**Table 4.1: The Comprehensive/Partial Modernisation Dichotomy**

COMPREHENSIVE MODERNISATION	PARTIAL MODERNISATION
<p><b>Management Change:</b></p> <ol style="list-style-type: none"> <li>1) A mission statement emphasising quality, openness and participation</li> <li>2) Structures and hierarchies which fulfil these objectives</li> <li>3) HRM policies to promote these objectives</li> <li>4) Product and external market relations based on these principles</li> </ol> <p><b>Workplace Change:</b></p> <ol style="list-style-type: none"> <li>1) Technologies and techniques which promote quality, flow and continuous improvement</li> <li>2) Broader skilled jobs and work responsibilities; more autonomy</li> <li>3) Teams, reduced supervision and participative initiatives</li> <li>4) Increased education and training; career expectations and other initiatives which promote ILMs and greater employment stability</li> </ol> <p><b>Firm Based Outcomes:</b></p> <ol style="list-style-type: none"> <li>1) Enhanced quality and productivity</li> <li>2) Higher skill structures/ fewer skill differences within workforce</li> <li>3) Higher wages/ wage incentives</li> <li>4) Reduced turnover/absenteeism</li> <li>5) Reduced supervision proportions</li> </ol>	<p><b>Management Change:</b></p> <ol style="list-style-type: none"> <li>1) Few changes beyond a mission statement</li> <li>2) Still hierarchical</li> <li>3) Continuing paternalistic approach</li> <li>4) Outsourcing which often leads to deskilling within the firm</li> </ol> <p><b>Workplace Change:</b></p> <ol style="list-style-type: none"> <li>1) Mainly technological change to key bottleneck areas / few qualitative changes</li> <li>2) New tasks and responsibilities within a rigid line process</li> <li>3) Only minor participative initiatives.</li> <li>4) Minor, mainly technical, training initiatives. Continued reliance on external labour market for labour.</li> </ol> <p><b>Firm Based Outcomes:</b></p> <ol style="list-style-type: none"> <li>1) Minor and uncertain improvements</li> <li>2) Low skill reliance / high skill divisions within workforce</li> <li>3) Low wages / large wage divisions</li> <li>4) High/ oscillating turnover levels</li> <li>5) Few changes in supervisor proportions</li> </ol>

## 4.2 THE PRODUCTION OF MANAGEMENT

This section analyses three groups of indicators of managerial change for the case study factories – in overall principles, in structures and in their market and product focus. Local and industry related factors make each of their experiences unique.

<sup>1</sup> See Appendix C for a discussion of the skill definitions used in this study.

However, of greater importance is the fact the two most recent factories have demonstrated a more unequivocal commitment to a quality strategy and its implementation within the firm.

#### 4.2.1 Management Principles - Features and Influences

Prior to the establishment of Brastemp-Rio Claro and Consul III, management principles at Brastemp and Consul were very Fordist in orientation. A more paternalistic version of this model was in operation at Enxuta. For example, production at the Brastemp-São Bernardo facility was originally based on large, standardised products produced by highly supervised, relatively well paid workers. These features combined with low skill levels, the tolerance of high turnover and adversarial industrial relations defined factory operations and management style as very Fordist<sup>2</sup>.

Consul's original operations share many of the Fordist production line features of Brastemp-São Bernardo. However, there are important differences which distinguish management policy at this location. For example, large Joinville companies such as Consul, with strong local identities and visibility, have put more emphasis on training<sup>3</sup>, labour retention and civic values. Nevertheless, their approach was not a very co-ordinated one up to 1989. Nor was it explicitly tied to strategic objectives such as quality. Moreover, in contrast to their previous industrial relations stance, during the market uncertainties of the late 1980s the company showed little concern for labour stability by sacking many employees and re-employing others<sup>4</sup>.

In comparison, while Enxuta's product launches shocked the market dominance of the major white goods producers<sup>5</sup>, in terms of management style their approach was even more traditional than that at Brastemp-São Bernardo and Consul. For instance, management was very hierarchical, being located almost solely in the hands of the local entrepreneur who started the idea. Like many local Caxias business people, his interests

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<sup>2</sup> See, DIEESE – 'Brastemp: produtos modernos, arcaicas relações de trabalho', Trocando em Miúdos – Informativo Sócio-Econômico, no. 7, 7/88.

<sup>3</sup> Discussed in section 4.3.3.

<sup>4</sup> This appears to explain the much higher turnover figure recorded at Consul in 1989/90, (Table 4.14). These strikes are discussed in Chapter 7.

spanned many sectors and he was very visible as the head of the company.

While Enxuta's meteoric growth necessitated the formation of a management directorate<sup>6</sup>, the above-mentioned features continued into the late 1980s. For example, supervision remained a very visible affair. Supervisors held power for more than just technical issues, they had the authority to make decisions affecting almost every aspect of work life<sup>7</sup>. Paternalistic practices such as a well-resourced crèche also emerged (in 1988). Quality, continuous improvement and participative principles were not of great importance to the firm's strategy. Sufficient durability for a cheap, simple but timely product characterised the principles behind Enxuta's management strategy<sup>8</sup>. Low cost, low skilled and disposable labour fitted this approach<sup>9</sup>.

However, the 1991-92 recession and a more open economic environment made it clear to all of these producers that fundamental changes were required to their operations. For Enxuta, this was reinforced by the managerial change requirements of a *Banco Nacional de Desenvolvimento Econômico e Social* (BNDES) financial rescue package<sup>10</sup>. Accordingly, in 1993 Enxuta launched their quest for international quality certification (ISO 9000). This involved a firm level mission statement which promoted continuous improvement, conceptual training and greater commitment to, and collaboration with, employees<sup>11</sup>.

In contrast, an important impetus for management change at the Brasmotor companies came from their links with Whirlpool. While it was not until 1992-93 that Brasmotor publicised its 'Vision', an increasingly close relationship was developing between these companies during the 1980s<sup>12</sup>. An important corollary of this involvement was to be the development of Brasmotor product, process and human resource policies. These policies closely mirror the Whirlpool approach, as is shown

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<sup>5</sup> See, *Exame*, 'O Futuro é dos Baixinos', 13/12/89, pp60-62.

<sup>6</sup> Discussed in the next subsection.

<sup>7</sup> Details in interviews with researchers from the University of Caxias and a former Enxuta social services worker.

<sup>8</sup> Noted in interview with Sr. Triches, 12/92 and in the company's questionnaire response.

<sup>9</sup> As lamented by Sr. Conte, (former) human resources director of Enxuta, 12/92.

<sup>10</sup> Confirmed in meetings, and from records, at the BNDES in 1994.

<sup>11</sup> See Enxuta, *Por dentro da ISO 9000*, 1993.

<sup>12</sup> As noted in Chapter 3.

below.

The principles upon which Whirlpool founded their new vision had a number of elements. In terms of products, the company worked towards developing universal inputs but with final product specifications tailored to particular markets' consumer demands<sup>13</sup>. In terms of the generation of a strategic global vision, Whirlpool began a process of dialogue with management in all of its affiliates<sup>14</sup>. With the belief that the creation of trust and a common vision would take time, these executives met and formulated a series of study groups and projects<sup>15</sup>. The leaders of these groups were responsible for involving colleagues in the development and implementation of the 'emerging consensus'.

In terms of human resource development, the Whirlpool vision came to have a number of principles - communication, participation and compensation<sup>16</sup>. Under no illusions as to the low skill, low pay nature of their workers, the company sought to promote policies which 'leveraged' more commitment and productivity from their factory employees<sup>17</sup>. To generate workers who laboured with a greater desire for continuous improvement, Whirlpool executives decided that there was a need to make workers feel like they had a greater stake in the organisation. To achieve this, greater communication was advocated as were less overt systems of supervision, teamwork concepts and pay systems which rewarded team-based performance and quality advances and suggestions<sup>18</sup>.

Brastemp, Consul and Embraco have been part of this strategic development process. As shown in Figure 4.1 below, the Brasmotor 'Vision' reflects very similar principles. All three companies actively publicise their new total quality mission in their publications and workplace banners. In terms of products and processes, more emphasis on product quality, but with greater attention to the smaller, cheaper model

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<sup>13</sup> R. Maruca, 'The Right Way to Go Global: An Interview with Whirlpool CEO David Whitham', Harvard Business Review, March-April, 1994, p136.

<sup>14</sup> Ibid., pp140-142.

<sup>15</sup> See, G. Kesler, 'A Model and Process for Redesigning the HRM Role, Competencies and Work in a Major Multi-National Corporation', Human Resource Management, 34/2, 1995, pp229-252.

<sup>16</sup> Maruca, 'Way to go Global...', p140.

<sup>17</sup> Ibid., and S. Greengard, 'Leveraging a Low-wage Work Force', Personnel Journal, 1/95, p100.

demands of consumers, is evident<sup>19</sup>. Universal parts, simplified processes and common products (vis-à-vis Whirlpool) also characterise their new approach.

**Figure 4.1: The Brasmotor ‘Vision’ - principles and objectives.**

MARKET OBJECTIVES	<ol style="list-style-type: none"> <li>1. Satisfying the consumer.</li> <li>2. Total quality – continuous improvement.</li> <li>3. Growth through a global approach and collaboration by all.</li> <li>4. To project a coherent, unified image of a top quality organisation.</li> </ol>
PRODUCTION IMPERATIVES	<ol style="list-style-type: none"> <li>1. A high quality, non-insular, orientation.</li> <li>2. Concern for productivity / efficiency.</li> <li>3. Flexible and modern structures, processes and technologies.</li> <li>4. Close/collaborative relations with workers, suppliers and clients.</li> </ol>
HUMAN RESOURCE PRINCIPLES	<ol style="list-style-type: none"> <li>1. To value and promote the needs and contribution (creativity) of all employees.</li> <li>2. Participative leadership.</li> <li>3. The cultivation of the spirit of motivation, co-operation and commitment.</li> <li>4. Communication / information- open, clear, honest and two way.</li> </ol>

**Sources:** Derived from, Brasmotor-Assessoria Corporativa de Comunicação Social, *Visão - Objectivos, Valores e Mudança*, 1992; and from discussions with Brasmotor personnel involved in the strategy.

In terms of human resources, Brasmotor workers are being encouraged to use new techniques such as JIT/Kanban and statistical process control (SPC). Furthermore, managers and technicians are being trained in a detailed understanding of the ‘Vision’ - in terms of communication, perception, feedback and leadership. Key employees from this group act as ‘change masters’, with particular responsibility for observing how well these concepts are being accepted amongst the hourly workforce<sup>20</sup>.

Yet, while the principles upon which hourly workers are treated differ little to the Whirlpool norm, in practice the Brazilian group has lagged far behind the practices used by Whirlpool in developed countries. For example, since 1989 hourly workers in a number of US Whirlpool plants have been involved in layout design, business plans

<sup>18</sup> Maruca, 'Way to go Global'..., p140.

<sup>19</sup> See subsections 4.2.3 and 4.3.2 of this chapter.

<sup>20</sup> These employees wear a special badge to signify their training and role.

and some operational decisions<sup>21</sup>. Also, pay structures have changed as a result of the rewards given to workers for their suggestions and productivity improvements.

Brasmotor firms may be working towards these forms of participation. However, changing attitudes will be difficult. Most managers have been used to an environment where relations with hourly workers do not require discussion and compromise. Moreover, most workers will be very aware of the real wage reductions which have occurred between 1989 and 1992<sup>22</sup>. The scepticism of workers at the older sites may be heightened when they observe that new quality and allegiance campaigns have been launched alongside massive employment reductions (Tables 4.2-4.3 below) and thus rising levels of employment insecurity, particularly since 1989.

**Table 4.2: Total Employment and Hourly Worker Proportions - The Refrigeration Producers (Brastemp-São Bernardo and Consul); 1985-93**

YEAR	BRASTEMP		CONSUL	
	Total	% Hourly	Total	% Hourly
1985	5234	77.5%	6160	79.0%
1986	6125	79.0%	-	-
1987	6971	79.5%	7560	79.0%
1988	5712	75.0%	5846	77.0%
1989	6459	77.0%	7157	80.5%
1990	4935	72.0%	6670	81.0%
1991	3695	80.0%	5912	82.0%
1992	3043	67.0%	4722	81.0%
1993	2749	66.5%	5135	83.0%

**Source:** Company archives and interviews.

<sup>21</sup> See Greengard, 'Leveraging ..', p 100; *Personnel Review*, 23/2, 1994, pp26-28 on a scheme operating since 1988 in the US; and E. Sandelands, 'Managing without Supervisors', *Management Decision*, 32/5, 1994, pp50-51.

<sup>22</sup> See the regional data on wages in Appendix B, Tables B6 and B7, the data on real wages in Chapter 2 (Table 2.4) and subsection 4.3.3 of this chapter.

**Table 4.3: Total Employment and Hourly Worker Proportions - The Washing Product Producers (Brastemp-Rio Claro and Enxuta); 1985-93**

YEAR	BRASTEMP-RIO CLARO		ENXUTA	
	Total	% Hourly	Total	% Hourly
1985	-	-	916	74.0%
1989	-	-	2208	74.0%
1990	449	74.0%	1516	72.5%
1991	554	77.0%	1301	72.0%
1992	587	74.0%	759	68.0%
1993	596	76.0%	670	67.0%

**Source:** Company archives and interviews.

In comparison, the Brastemp-Rio Claro and Consul III factories offer a much better platform for the application of these new policies. While operating at low capacity levels, employment in each factory is steadily rising<sup>23</sup>. The next subsection illustrates how their organisational structures also demonstrate their more comprehensive application of a management vision than is evident at the three older factories.

#### **4.2.2 Organisational Structures and Systems**

The recession forced many firms to ‘downsize’. However, ‘downsizing’ has not necessarily made firms leaner or more efficient. This is evident from the experiences of the more traditional case study factories. Structural changes which are both leaner and more efficient may require a conscious effort to make more fundamental organisational and participative adjustments.

For instance, at their height Enxuta used a very vertical structure - a presidency, directory and six divisions<sup>24</sup>. Each division had a number of managers and each of the production areas under their responsibility was overseen by numerous supervisory staff. However, as of 1993 there are no directors within the Enxuta structure and the heads of the divisions work directly with supervisory and technical staff. Rather than

<sup>23</sup> Shown for Brastemp-Rio Claro in Table 4.3. Consul III figures are included in the Consul total in Table 4.2.

being separated within the large administrative block these divisional heads and their staff now share an open-plan office. Yet even with the 'downsizing' which has occurred Enxuta is still administratively 'top heavy'. It still has a lower proportion of hourly workers (Table 4.3) relative to the more modernised firms.

On the other hand, the sheer size of Brastemp-São Bernardo and Consul has meant that they are still very bureaucratic and hierarchical. However, both firms made two important changes to their organisational structures and reporting systems after 1990<sup>25</sup>. These changes are not necessarily linked to a reduction in scale and may allow the firms to generate greater productivity from their workforces.

First, by 1993 each firm had created a clearer functional and geographical separation of their skilled workers from the rest of the manufacturing labour force. At Consul this was done through making skilled tooling and most maintenance workers responsible to a different directorate and by building a separate area for these workers (for both factories) within factory II. Brastemp-São Bernardo, on the other hand, established a separate facility for skilled tooling, most maintenance and engineering workers at the São Bernardo site. Work conditions at this Advanced Development Centre (ADC) contrast sharply with the main Brastemp-São Bernardo factory

The second important change at Consul and Brastemp-São Bernardo concerns reporting structures and the nature of interaction promoted amongst factory employees. In both factories, prior to 1990, the head of each section was separated from production workers by three levels of reporting - chiefs, masters and leaders. In 1993, Brastemp-São Bernardo cut out the positions of master and leader and planned to base production on cells. At Consul, such changes were earlier and more radical. For instance, in 1992 the leader position was removed and in many cases master's functions were melded with the section chief's role within a new cell-based workplace structure.

By differentiating skill groups and flattening reporting structures the Brasmotor firms appear to be trying to 'leverage' more motivation and productivity from each

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<sup>24</sup> Highlighted by the company's response to the questionnaire (26/4/93) and in interviews.

<sup>25</sup> Noted by HRM staff, questionnaire replies and expanded upon in discussions with plant

group of workers. However, while flatter structures may be good for workers, the separation of skill groups may offer no more than a better basis for management to control workers. Nonetheless, the use of these concepts at their new factories has made production and workplace relations at these two sites even leaner and, possibly, more participative.

For example, Consul overall has the largest proportion of hourly production workers (83%; Table 4.2). This figure is even higher (97%) in factory III. Moreover, with small numbers in production in factory III, work relations are very close and personal - there is one plant manager, five subcells each with one chief and an hourly worker captain and the subcells are very small (5-8 workers)<sup>26</sup>.

Brastemp-Rio Claro, on the other hand, fits within the operations directory of the newly created Multibras (Brasmotor white goods) company structure<sup>27</sup>. The provision of many group wide administrative functions in São Paulo and the use of the ADC in São Bernardo for complicated engineering services means that a large proportion (76%, Table 4.3) of the workforce at Brastemp-Rio Claro are hourly workers. As analysed in subsection 4.3.3, cells and participative subcell relations have, like at Consul III, been used from the factory's inception.

A final important feature with respect to management/organisational systems relates back to Brasmotor's connection to Whirlpool. While Consul and Embraco were being brought closer within the Whirlpool/Brasmotor system, the former American head of Whirlpool Brazil took on strategic positions within the Brasmotor and Embraco directories (in the early 1990s) and as head of Consul in 1993. The creation of the Multibras white goods 'umbrella' company in 1994 saw him as its director general<sup>28</sup>.

A trend towards a more co-ordinated approach (especially at the Brasmotor factories) can also be seen in management's product, outsourcing and market strategies. The following subsection highlights these issues and how they vary between the more

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management (Srs. Sergio and Jair, Consul; Sr. Romboli, Brastemp- São Bernardo).

<sup>26</sup> Interview with Consul factory III management, 5/5/94.

<sup>27</sup> As shown in, Brasmotor Global, 'Edição Especial', no. 26, 4-5/94.

<sup>28</sup> *Ibid.*, pp3-5.

modern and the more traditional firms. However, the discussion also suggests that the overriding control of the market by Whirlpool may be constraining the chances of any Brazilian firm expanding too far beyond the domestic market.

#### 4.2.3 Products, Markets and External Market Relations

A firm's products and relation with suppliers also highlight their modernisation strategy. These issues will have implications for factory work. Higher quality products imply that the firm may have the potential to capture space in new markets. These products may require new and/or greater production skills. On the other hand, modernised productive processes are often observed to include enhanced relations with input suppliers. Phenomena such as outsourcing may have both positive and negative effects on work.

The case studies offer mixed results in these respects. For example, product quality has risen and greater outsourcing is occurring at the most modernised firms. However, products are becoming simpler and the market focus is still very much limited to Brazil. These features may put a limit on how far skills may be enriched and on the possibility of employment expanding or being made more secure through the firm tapping new markets.

The washing product producers clearly illustrate these issues. The principal products of Brastemp-Rio Claro (the 'World Washer' and the 'Baby World Washer') are of a much higher quality than that of their competitor, Enxuta<sup>29</sup>. For example, the agitation process is more stable and the product is a more efficient user of energy and water. However, the production strategies for this 'joint venture' (the 'World Washer')<sup>30</sup> and the scaled down version of a Whirlpool design (the 'Baby World Washer')<sup>31</sup> are

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<sup>29</sup> Clear from an inspection of the products and due to the large number of consumer complaints of the Enxuta product, as recognised by the BNDES and the company itself. The Brastemp-Rio Claro 'World Washer' won top awards from a US based appliance magazine (Appliance Manufacturer -The Magazine of Design for Manufacturing Solutions, 1/91).

<sup>30</sup> Almost every facet of the 'World Washer' was designed by Whirlpool or its US/European contractors (see, Brastemp, Lavadora Brastemp Mondial, Rio Claro, 1991, p2) and then assembled at Brastemp-Rio Claro.

<sup>31</sup> As noted by technical staff at Brastemp-Rio Claro, the 'Baby World Washer' is simply a scaled down version of the original Whirlpool product.

based on high volumes of a low cost, high quality product, not model variety or export potential for Brastemp<sup>32</sup>.

The Brazilian market intentions of Brasmotor/Whirlpool are even clearer when it is noted that Brastemp-Rio Claro's new product 'X' is a totally manual washer (basically a durable plastic bucket with an agitator). This product, 'the beauty', is assembled at the plant and sold under another Brasmotor company name at a price much below the Enxuta product<sup>33</sup>. Conversely, Enxuta's new product is expected to be a simpler, cheaper, portable version of the Consul air conditioner<sup>34</sup>. However, despite these innovations, neither of these new products is expected to give the companies any greater market presence beyond Brazil and existing markets. The skills needed to produce them are also less than for other products.

In terms of outsourcing, while both companies' principal product (the washing machine) is simpler to produce than past Brazilian washers, the Brastemp-Rio Claro product is based on a higher degree of outsourcing than Enxuta's<sup>35</sup>. For example, electrical controls, wiring and motors are all imported to the factory. Most of the (Whirlpool designed) subsystem is produced internally and it is assembled there. However, in contrast to Enxuta, the Brastemp-Rio Claro factory has no oxidising, coating or painting functions as the steel sheets are brought in pre-painted and the metal for the internal bowl is pre-treated. This situation has reduced some traditional functions and skills but it has also increased the need for technical personnel to have a more active role with suppliers.

A similar situation is emerging with respect to the product and supplier relations of the refrigeration producers<sup>36</sup>. Brastemp-São Bernardo has reduced the size of its product, increased the use of plastic components, improved the efficiency of the product's operating system and expanded outsourcing. Such developments are even

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<sup>32</sup> As noted in publicity (ibid., p2), the 'World Washers' are 'designed for the Brazilian market'.

<sup>33</sup> It is sold under the 'Semer' name at about 40% of the price of the standard Enxuta washer.

<sup>34</sup> Noted by executives and designers at Enxuta (14/6/94).

<sup>35</sup> Based on discussions with the companies, factory visits and responses to questionnaires (9/3/93 and 26/4/93).

<sup>36</sup> Observations based on factory visits, discussions and the companies written responses to questionnaires.

more distinct at Consul, particularly at factory III<sup>37</sup>. Brastemp-São Bernardo is also moving in the product development direction of the Brastemp-Rio. For example, in 1993 a prototype of an Enxuta style air-vent clothes dryer was observed at the ADC in São Bernardo. This would put Brastemp more directly in competition with Enxuta for this simple, low skill based, domestically orientated product, but at a higher level of quality.

On the surface, these product and process developments might suggest that these firms have a better chance of capturing new markets. However, as with hypotheses about rising skill levels, the above discussion has shown that this is far from certain. A combination of Whirlpool's market control and the domestic orientation of Brazilian management appears to be limiting these possibilities. Further support for this view can be seen in the fact that (at least up to 1994) the export focus of these companies does not appear to have changed<sup>38</sup>.

For example, Brastemp-Rio Claro does not expect to be a significant exporter outside of a few sales to Mercosul partners and the small number of products which leave the factory under the Whirlpool name<sup>39</sup>. Enxuta only exports about 9% of total output and almost all of this is to destinations in Latin America<sup>40</sup>. Even the largest and most well known producer, Brastemp-São Bernardo, only exports between 5-9% of total output (also within Latin America)<sup>41</sup>. On the other hand, while Consul exports have grown to around 20% of total output<sup>42</sup>, this is mainly due to the continuing success of their bar fridge in existing LDC markets.

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<sup>37</sup> Noted in Consul's response to the production questionnaire and via observation/interviews at the factories, compared to Brastemp-São Bernardo's operations/responses.

<sup>38</sup> In fact, while company publicity often alludes to the hope of new export markets, senior marketing staff made much more low key predictions.

<sup>39</sup> Information provided in a written response and in discussions with Brastemp technical and sales staff at Rio Claro and São Paulo.

<sup>40</sup> Based on written responses by the company.

<sup>41</sup> Calculated from export/production figures provided by the company.

<sup>42</sup> As for footnote 41.

## 4.3 THE MANAGEMENT OF PRODUCTION

This section describes how production has been organised and the conditions under which workers labour. After a brief sketch of the requirements of refrigeration and washing product production and the traditional white goods production process (4.3.1), the section describes how plant layouts, technologies and techniques have been modified at the case study factories (4.3.2). This leads into a consideration of the approach of each firm to task allocation, employee relations and employment conditions (4.3.3).

The more modernised Brastemp-Rio Claro and Consul III differ in aspects of their production and workplace systems. Product specifications, local labour market factors, industrial relations conditions and local managerial attitudes appear to explain many of these differences. However, the section demonstrates that, compared to the other firms, both these two firms have integrated their visions of modernisation quite profoundly within their workplaces.

### 4.3.1 The Traditional White Goods Production Process<sup>43</sup>

White goods output is based on the labour intensive production line assembly of products by predominantly low skilled workers. Labour costs make up around 10% of total production costs for both groups of products. The stages which were common to the white goods production process (up to the mid-1980s) are shown in Figure 4.2 below. Within these stages, while firms tried to allow the product to develop in a logical way, plastic and metal parts production and assembly stood apart from the line and often quickly became less integrated within the process. Only the final assembly stage came to be automated (via a conveyor belt). Input and component movement between all other stages was manual and, in view of the importance of ensuring adequate quality and minimal stock levels, numerous quality control workers were employed throughout the process. Testing was not integrated into the process and the co-ordination of supplier relations between stages did not yet exist.

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<sup>43</sup> The below description is based on factory visits (1992-93), interview responses, DIEESE, 'Brastemp': Produtos Modernos', pp35-40; and J. Toledo, 'Automação microeletrônica na indústria de

**Figure 4.2: Broad Stages of the Traditional White Goods Production Process**

STAGE 1)	Material receipt/organisation/preparation
STAGE 2)	Stamping, shaping and soldering
STAGE 3)	Cleaning, coating and painting (of metal)
STAGE 4)	Plastic injection (separate section)
STAGE 5)	Metal component fabrication ( " " )
STAGE 6)	Component assembly ( " " )
STAGE 7)	Final assembly
STAGE 8)	Packing, storage and distribution

**Source:** Derived from, DIEESE, 'Brastemp: produtos modernos..',

After material receipt, stage 2 of the process is where the casing (or doors and cabinet) are cut to size and shaped to form using presses, cutters and standard industrial soldering irons. Stage 3 is the dirtiest and most dangerous stage of production. However, it is the most critical in terms of quality and production time. It is here that metal pieces are oxidised, dried and sent to the painting chambers. In the paint area employees using paint guns, or electrostatic disk systems, paint the pieces. Workers then check the quality of the metal sections before they are moved to high temperature drying rooms.

While the washing and refrigeration products differ in their components and while refrigeration is a more complex process, both products have plastic, metal and electro-mechanical components which need to be produced or assembled prior to insertion into the process. Components specific to the washer are the internal bowl, motor, pump, agitator and electrical consul. A refrigeration product is unique as it requires the production/assembly of a refrigeration system (compressor, tubing, grate, condenser and evaporator) and a system of insulation between the inner and outer casing and in the door. The traditional Brazilian refrigerator stood out as it still used fibreglass rather than polyurethane for insulation.

The production and/or assembly of these inputs (in stages 2-6) largely determined the nature of skills involved in production. Also, the separation of these tasks from line work meant that production line tasks were of the lowest skill level, confined to placing parts within the evolving product. Further, the checking of the product by separate quality control workers accentuated the monotonous and simple nature of direct production line work, the stage where most workers are employed. Finally, this heterogeneity of skill groups was even more marked as skilled workers shared the same workspace.

#### **4.3.2 Changes to Layouts, Technologies and Production Flow**

Between the late 1980s and 1994 Enxuta made few changes to the traditional model of production whereas Brastemp-São Bernardo and Consul II partially modernised. At the two most recent factories (Brastemp-Rio Claro, Consul III) radical new layouts, production technologies and production flow methods were installed. This subsection reviews these developments, starting first with a consideration of washing product production<sup>44</sup>.

Of all the firms, Enxuta most closely fits the traditional model of production. Most equipment is universal, part movement is manual, stock levels are high and the level of co-ordination between stages of production is low within what is a dirty, noisy work space. The largest investments the company has made in new technology (in the late 1980s) have been the purchase of plastic injectors and the acquisition of more up-to-date metal pressers, cutters and tool room equipment. However, crucial processes such as the production of the cabinet/internal metal bowl and general production flow remain antiquated. For instance, the cabinet is manually cut, shaped, soldered and moved. It then goes through the crucial oxidation, painting and drying process - one which is slow, manually intensive and hazardous.

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<sup>44</sup> The general description noted in this subsection comes from interviews carried out in the process of the project, B. Neto et al, 'A indústria de electrodomésticos de linha branca: tendencias internacionais e situacao no Brasil', (1992), Instituto de Economia, University of Campinas, see pp 166-213. Other more specific data on technologies and processes were provided by the companies and by extensive factory observation and discussions by the author.

The washing machine's internal metal bowl is a key determinant of product quality. At Enxuta, metal sheets for this input are cut, holed and shaped through a process involving five workers and seven manual processes. After the quality of the bowl is verified it then has to go through the galvanising process. As a consequence of such production features, wage costs at Enxuta make up a high proportion of total production costs (11-12%).

Brastemp-Rio Claro, in comparison, is highly organised. Inputs arrive close to where they are needed in the largely automated line, one in which some assembly (e.g. the subassembly) and testing functions (i.e. for electrical efficiency and water use) are included. This clean, tidy, quiet factory is the result of these factors, the low level of stocks and the absence of painting, oxidising, drying and galvanising functions. Key technological advances include - fast NC (and rapidly changed) metal input stampers, microprocessor controlled plastic injectors, four (soon to be operational) on-line testing robots and an overhead crane which facilitates fast mould changes for metals and plastics machines.

The two greatest technological advances that Brastemp-Rio Claro has over Enxuta are for the cabinet and the internal metal bowl. Metal sheets for the cabinet are pre-painted and these move by an automated (Italian) transfer line which mechanically folds, holes and solders the cabinet. Only four, but conceptually well trained, workers keep an eye on the process, one which is capable of producing a massive 110-120 cabinets per hour. Metal bowl production is even more distinctive. Already galvanised sheets are fed through a NC machine which cuts, holes and shapes the bowl and temporarily solders a lid on one end. The piece is then moved into a NC chamber where it is automatically tested and final soldered. Only two workers (one semiskilled and the other unskilled) are used to manage this fast and clean process.

As a consequence, if workers fulfil the new expectations of them production is streamlined and very efficient. Space is minimised and workers move little while the product flows smoothly and quickly through the co-ordinated process. As a result of these technologies and the absence of most high skilled or labour intensive manual tasks, wages make up only just over 8% of total production costs at Brastemp-Rio

Claro.

In terms of refrigeration, by the mid-1980s Brastemp-São Bernardo's lumpy, discrete approach to production change meant that it had become crowded and disorganised<sup>45</sup>. A new line was added in 1980, separate lines and areas had developed for subpart assembly and testing and there had been no changes in equipment since the mid-1970s. In response, between 1985 and 1990 the firm made a number of major changes to its operations. These included, faster velocity metal shapers, programmable door presses, new vacuum formers and micro-controlled refrigeration pumping. However, all that had really been done was the introduction of new equipment in a few key bottleneck areas. Labour costs still make up a high proportion (14.5%) of total production costs at this factory.

In 1992 Brastemp-São Bernardo began a five-year plan to change the factory in more extensive ways, changes which will have far greater effects on production integration and flow<sup>46</sup>. First, the present three lines are planned to be converted into two more automated ones which include on-line computer testing and automatic product swivelling. Secondly, refrigeration unit assembly will be integrated into the line and the technologies for stamping, shaping and welding will be further improved by machines which automatically bend, hole and weld the large pieces. However, there are limits on how much can be changed within a factory space which is crowded and will still involve many manual processes (e.g. product movement and painting related functions).

The Consul II factory, on the other hand, has gone through a more gradual process of modernisation<sup>47</sup>. Also, it uses fewer parts and has always had simpler products than Brastemp-São Bernardo. However, the factory's large mix of refrigeration products (all types), mixed use of inputs (e.g. sometimes fibre glass, sometimes polyurethane), partial reliance on manual methods (e.g. for paint tint and

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<sup>45</sup> See, DIEESE, 'Brastemp: Produtos modernos', pp31-43.

<sup>46</sup> These changes cost US\$ 7M in 1992 and a planned US\$ 30 between 1992-97 - Brastemp, Bras-Notícias, no 8, 14/8/92.

<sup>47</sup> This smoother process is illustrated by the introduction of - cabinet presses (1975), polyurethane insulation (1983), electrostatic painting (1986), automatic door injectors (1985), and paint area

mould changing and insulation injection) and the recent addition of the bar fridge, left it a crowded and hard to co-ordinate factory space by the early 1990s.

The company has tried to work around these constraints. For example, during the late 1980s factory II began to use many new computer technologies (e.g. CNC machines, bar coding and a network data bank)<sup>48</sup>. As a result, despite the labour intensive nature of production, labour costs as a proportion of total production costs sit just below the industry average at 9%.

Between 1994-98 Consul plans to carry out a more comprehensive modernisation programme in factory II<sup>49</sup>. The factory space will be expanded, production lines will be separated and fully automated, NC test beds will be introduced, new paint and polyurethane technologies introduced and refrigeration unit assembly will be integrated into the line. While these changes will make factory II more like their new factory, they are still partial adjustments. It is doubtful whether this old factory space could ever match the efficiency of Consul III.

Consul III is based on a new, simplified product, one which the company feels will meet new quality standards and market potential<sup>50</sup>. Every stage of production is automated, computer linked and tested. Only polyurethane is used for insulation and this, like refrigeration components, is integrated within the stop-go production line. Plastic production, vacuum forming, cabinet and door formation and painting functions are based on the most up-to-date technology and parts are produced very close to where they are needed. Work positions (between the overhead receipt of painted doors and cabinets and the computerised final testing, packing and storage area) are in ergonomic based trenches. The product moves and swivels automatically so that workstations are fixed, safe and comfortable. This new layout is shown in Figure 4.3 below<sup>51</sup>.

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transfer lines (1987).

<sup>48</sup> Lists and descriptions of Consul's recent acquisitions of technologies were provided by Sr. Marcio, Consul Engineering Department, 1994.

<sup>49</sup> Preparation for these changes could be observed in early 1994. Technical staff also supplied diagrams of what the factory would look like.

<sup>50</sup> Features of the factory were fully elaborated in interviews and from inspection. See also - Consul, *Informativo*, Edição Especial - Fabrica III, no. 80, Verão 1993.

<sup>51</sup> No photos could be taken in this factory. Figure 4.3 and the following description were recreated after numerous visits, discussions and from written responses.

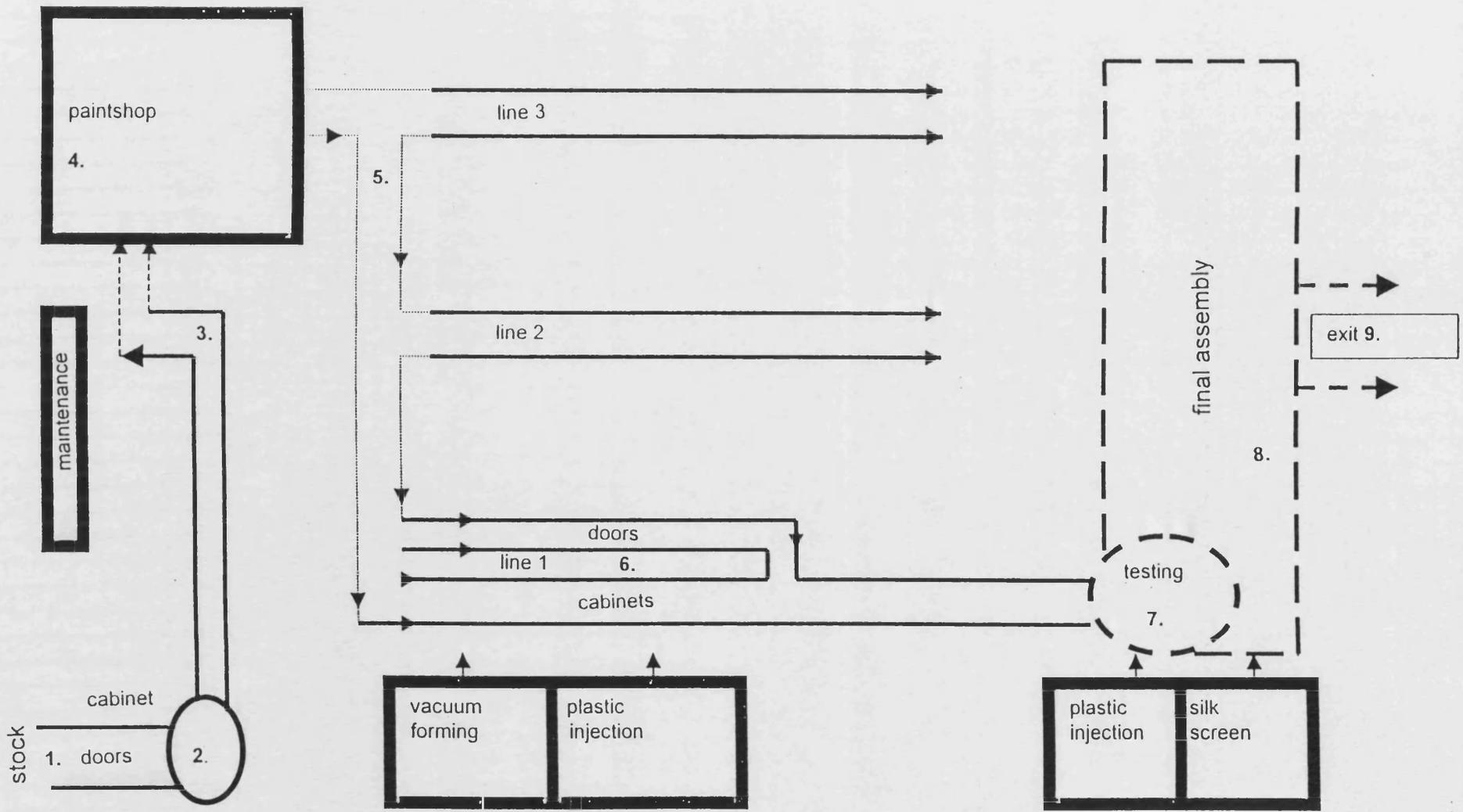


FIGURE 4.3: THE MODERNISED FACTORY LAYOUT FOR REFRIGERATION – CONSUL FACTORY III, 1993

The Consul III production process starts with (factory II cut) metal sheets which are loaded onto an automatic line which presses and folds them into cabinet and door panels. Still moving on this line, these pieces are holed (in an automatic carousel) then welded and tested before being lifted on an overhead line into oxidation, painting and drying chambers. Painting and tint changing are fully computerised, rapid and automatically tested. After final quality observation the doors and cabinets move by overhead lines to the production line.

On arrival, the door and cabinet separate onto either side of the line. On the door side, rubber sealing is attached and then insulation is mechanically inserted into an automatically tilted door. On the cabinet side, tubes and wires are put in place and then the pre-made internal tub is inserted. The cabinet then tilts back for the automatic insulation process. Prior to the cabinet mechanically tilting back up for further work the components and insulation are computer checked for efficiency.

With the door and cabinet back in positions where labourers can easily work, parts are inserted, features are checked and the compressor is attached. The two parts merge and are joined at the end of this line. From here the fridge moves on a line to an overhead station where the gas is inserted and the insulation and electrical system receive a final computer check. The final stage of production also occurs on this platform. Trays, shelves and outside emblems are attached and then the product moves through an automatic packing and bar coding process prior to storage, or placement in (JIT) trucks awaiting their preplanned delivery load.

With almost all functions put within the line, Consul III represents the most precise, rapid and integrated model of production. Labour costs represent a low of around 5% of total production costs. Also, while both Consul III and Brastemp-Rio Claro are much more co-ordinated and integrated than the other factories, they vary in their modernisation approach.

For example, Consul III has chosen to rely more intensively on technology to facilitate production efficiencies. At Brastemp-Rio Claro production techniques and new forms of employee relations and employment conditions dominate their approach

to a greater degree. This is partly due to differences in the product and the greater complexity of the refrigeration process. This difference in approach may also bear some relation to where each originally gained much of their inspiration for modernisation (i.e. Consul – Continental Europe; Brastemp – the US).

However, for both these highly modernised factories to function as planned workers need to be trained in new tasks. The efficiency by which workers carry out these tasks also depends heavily on their motivation to achieve the new expectations put on them. Consequently, the workplace policies, structures and incentives all these companies use to try and make their systems work efficiently are considered below.

### **4.3.3 Tasks, Employee Relations and Employment Conditions - Principles and Policies**

Chapter 1 highlighted the optimistic argument that modernisation will be based on broader tasks/jobs, closer and more participative employee relations and ILM type employment conditions. These are expected to foster a happier, more productive and committed workforce. While subjective aspects of this process are considered in following chapters, this subsection compares the case study firms on the basis of 1) workers' tasks and employee relations and 2) their conditions of employment.

Confirming the specific Brazilian literature (Chapter 2), the analysis of these issues in this subsection suggests that local managerial attitudes and industrial relations traditions have helped to create a distinct, low wage, anti-union and less open and generous modernisation process at the case studies relative to the optimistic model. However, within this context, the two most recent firms have still applied modernisation techniques in a most comprehensive way.

#### Tasks and Employee Relations:

Due to the management decisions and technical features discussed above, Brastemp-Rio Claro and Consul III do not have a large number of the most skilled manual group in their factories. They also do not have (Brastemp-Rio Claro) or have

vastly changed (Consul III) dirty, labour intensive tasks such as painting, oxidation and galvanising. However, many semiskilled machine operators and 'unskilled' line operators have a larger and different range of tasks to perform than in a traditional white goods factory<sup>52</sup>. For example, machine operators use Kanban/internal JIT methods and rely upon external JIT systems for their materials. They are also responsible for minor machine maintenance and for checking the quality of the finished input. Line operators have new input insertion responsibilities (e.g. insulation; subsystems) and carry out visual and mechanical checks of the product. While these checking duties are generally limited to the observation of an electronically controlled process, these workers must know what to do in case of a problem.

The layouts and technologies of these two factories make the use of these techniques and new tasks more possible. However, in an effort to maximise the effectiveness of these systems, both factories have organised production workers into cells (see Figure 4.4 below). The idea seems to be that smaller work groups, greater delegated responsibility and more involvement will increase motivation and workers' identification with quality and productivity objectives of the firm.

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<sup>52</sup> Based on factory visits, discussions and written responses - both factories.

**Figure 4.4: Cellular Production - the examples of Brastemp-Rio Claro and Consul, key features and outcomes**

FACTORY	KEY FEATURES AND OUTCOMES
Brastemp-Rio Claro	<ol style="list-style-type: none"> <li>1. Five production cells - metals, plastics, assembly line, manufacture and engineering.</li> <li>2. Each cell has a manager (an engineer) and cells divided into subcells of 4-8 workers.</li> <li>3. Subcells co-ordinated by a high skilled worker; subcells have an elected (unpaid) captain (monthly) who gains points for this.</li> <li>4. Cells and subcells discuss production issues and targets as well as evaluation and training needs of members.</li> <li>5. Cells and subcells responsible for product flow, quality, JIT / Kanban, basic maintenance and co-ordination between cells.</li> </ol>
Consul	<ol style="list-style-type: none"> <li>1. More traditional production sections. Factory III is a separate cell.</li> <li>2. Sections divided into sub-cells of workers.</li> <li>3. For unskilled and semiskilled workers in sub-cells – team captains (per 30 employees) elected. Subcells still co-ordinated by a white-collar chief.</li> <li>4. Workers, while using new techniques intensively, have very limited decision/input responsibility.</li> <li>5. Factory III cell divided into 5 subcells – assembly, plastics, polyurethane, painting and maintenance. Subcells are smaller than Consul II but factory also has one manager, one white collar chief per subcell and subcell captains.</li> </ol>

**Source:** Brastemp-Rio Claro and Consul interviews, 1992-3.

The structure of the cells of each plant are similar - both factories involve team captains in the co-ordination of activities and hierarchies have been minimised. However, the cellular system at Brastemp-Rio Claro is more radical. For example, subcells are co-ordinated by skilled hourly workers whereas at Consul III engineers co-ordinate activities. Secondly, at Brastemp-Rio Claro subcells are used more intensively for the discussion of not just production but evaluative and training issues. These issues are dealt with on a more individual basis at Consul III.

Brastemp-São Bernardo and Consul II have also been attempting to make use of new techniques and forms of employee relations. At Brastemp-São Bernardo, their early 1990s total quality push came to include the integration of Kanban/JIT and preventative maintenance tasks at some work posts by 1992<sup>53</sup>. Check lists, input

<sup>53</sup> These efforts were given a push by a 1992 state Government (FINEP) assistance package.

inventories, fault evaluation graphs and maintenance reminders are now evident in some operational areas. While the Advanced Development Centre (ADC) has removed most of the skilled from the shop floor, those left in this factory will be more responsible for checking, maintenance and process flow than they were in the past<sup>54</sup>.

Consul II has a longer history with new techniques of production than Brastemp-São Bernardo<sup>55</sup>. The late 1980s saw management trying to implement new methods and examples mirroring Brastemp's post-92 techniques have been evident since 1990<sup>56</sup>. However, the crowded, mixed and manual nature of operations here mean that these organisational changes may not be as effective as they could be. Cells and subcells already operate in this factory. Yet, as with Consul III, the most skilled are not part of the teams and subcells are managed by white collar workers who take an individual approach to members of the group.

The smaller scale of operations at Brastemp-Rio Claro and Consul III suggests that any benefits from closer, more integrated employee relations will be greater there than at the two larger factories. However, the other small-scale producer - Enxuta - has done even less to rearrange workplace relations. During the late 1980s management did attempt to introduce JIT/Kanban and SPC to many parts of operations and plans prior to the market crash were for these to be expanded and cells introduced<sup>57</sup>. Yet original attempts were partial and could never achieve much success in this less organised firm. Moreover, changes to tasks at this factory have occurred mainly for the skilled (e.g. faster, more complex mould changing<sup>58</sup>) whereas the semi/unskilled simply appear to have been put under greater pressure<sup>59</sup>.

Another employee relation change introduced by the two most advanced firms has been the introduction of new forums for discussion and involvement. For

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<sup>54</sup> Interview with Sr. Romboli, Manager, Industrial Engineering, Brastemp-São Bernardo, 11/1/94.

<sup>55</sup> For instance, since 1982 Consul has been offering courses in JIT/ Kanban and Quality Control.

<sup>56</sup> For example, after 1989 the firm began training for, 'Set-up' techniques, MPT (preventative maintenance), OFD (production evaluation) and FMEA (a new communication process).

<sup>57</sup> Interviews with Sr. Triches (12/92) and Srs. Fonseca and Pavianni (3/93).

<sup>58</sup> Interviews with HRM staff and written HRM response (27/1/93).

<sup>59</sup> These task effects were evident from observation and confirmed by HRM staff at Enxuta.

example, at both factories subcells are used for the discussion of work allocation and the work environment. Brastemp-Rio Claro goes beyond this to the use of other forums<sup>60</sup>, subcell structures and the 'carrot' of career progression to entice workers to identify and report areas of waste and make suggestions for efficiency improvement<sup>61</sup>. However, Consul is also concerned with attitudes and motivation as seen by the fact that employees must also attend a discussion group on family and community values.

More recently, Brastemp-São Bernardo is trying to follow this lead. However, their industrial history and present lack of cell structures and incentives for such initiatives hamper their level of success. The most traditional employer, Enxuta, has also experimented with participation and discussion forums<sup>62</sup>. While the management of Brastemp-Rio Claro is disappointed with the response to their schemes, Enxuta managers report very negative results. Most schemes at Enxuta have been disbanded. Supervisors note that workers are very reticent to talk openly. They also note that when workers are offered incentives for 'no fault' production and one achieves it, other workers are even more reticent to try and replicate the example<sup>63</sup>.

In summary, this discussion suggests that the most modernisation firms have removed many manual and skilled tasks from their operations. However, many new conceptual, organisational and evaluative responsibilities and new forms of employee relations have been introduced. Beginning with the issue of training, the following discussion examines how new employment conditions may be helping to fortify these developments at the most modernised factories.

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<sup>60</sup> e.g. Participation and Assistance Groups - GAP. These are tied to the cells. Another Brasmotor group wide programme ('Operation Red Flag'), was also extensively promoted throughout these companies between 1993-94. Its aim was to encourage workers to spot and report areas of waste and make recommendations for improvements - *Journal Brastemp*, 'Extra Edition', 4/93.

<sup>61</sup> For example, in 1993 the 'Participate - give a suggestion' programme was introduced.

<sup>62</sup> For example, discussion groups called 'improvement groups'; - noted in Enxuta HRM responses.

<sup>63</sup> As stressed by the Enxuta HRM manager (Pavianni) and production manager (Fonseca).

Employment Conditions:

At the two advanced firms a much greater degree of in-house training is made use of than in the more traditional firms (Table 4.4 below). Also, technical training is tailored to the specific technologies and processes used in these factories. More significantly, Brastemp-Rio Claro and Consul III employees are intensively tutored in not only manual but also conceptual and attitudinal issues - ones which connect new workplace tasks with the promotion of a pro-active attitude<sup>64</sup>. As suggested by the critical literature, the attitude being promoted is one which links a workers' progress with the success of the firm<sup>65</sup>.

**Table 4.4: Training at the Case Study Companies - average hours per hourly worker per month (1993) and focus of company training policy (1985-94)**

FACTORY TYPE	Hrs./worker	Training policy – General Features, 1985-94
TRADITIONAL: -Brastemp São Bernardo	1.0-1.2	Mainly manual, specific and workplace based. Post-91 has changed to be more conceptual, attitudinal and regular.
-Enxuta	< 1.0	Up to 1989 included in-house and on- the-job. Massive drop in training after 1990; now is minimal, specific and on-the-job. With new quality policy, conceptual courses may arise.
INTERMEDIATE: -Consul II	1.3-2.1	Traditionally – much specific and general, but centralised, training emphasis. Specific emphasis continues but now more company level conceptual modules are made use of and specific training is now more factory based.
ADVANCED: -Brastemp Rio Claro	4 - 5.2	Specific training via in-house/SENAI subcontracts for conceptual and attitudinal modules.
-Consul III	2 - 3.5	Compared to factory II - greater use of factory specific training, general attitudinal and conceptual courses.

**Source:** Company statistical publications/graphics and interviews.

<sup>64</sup> Examples for Brastemp-Rio Claro are - 1) Segmento Comportamental - Percepção (Perception training); 2) Trabalho em Equipe (Working in Groups); 3) Segmento Analítico - Graficos (Analysing graphs).

<sup>65</sup> Noted by psychologists/administrative staff at the plants and evident from their training manuals.

Courses common to both Brastemp-Rio Claro and Consul include *autocontrole* (self-motivation), quality control, cellular production, Kanban, ISO 9000, preventative maintenance and numerous modules on operational skills and technologies. There are also courses at each factory concerning 'what is quality', 'what is the firm' and 'participative negotiation'. At Brastemp-Rio Claro these courses are well organised and advertised. Workers are also given an idea of the minimum amount of training they are expected to undertake and how long modules should take to complete. Consul is also co-ordinating their training programme and its delivery, to a degree not evident in the past<sup>66</sup>.

However, the two advanced firms differ in respect to one major aspect of this new training focus. Brastemp-Rio Claro management believes that they need polyvalent workers and that all of the workforce should be involved in preventative maintenance, continuous improvement and quality control<sup>67</sup>. In comparison, Consul takes a less ambitious approach to the labour process of their workers. In contrast to the optimistic hypothesis, they do not believe that production requires such high expectations and thus dismissed the idea of polyvalent workers and a career plan at an early stage<sup>68</sup>.

Consul II is moving in a similar direction in respect to training as factory III. However, training uptake is lower. Brastemp-São Bernardo and Enxuta, on the other hand, have more divergent training histories. Traditionally, Brastemp-São Bernardo acquired most of its skilled workers in the market. Beyond basic induction for all new entrants few courses were offered. Supervisory staff demonstrated tasks or, if training was needed, this was provided on-the-job<sup>69</sup>. However, in 1992 Brastemp-São Bernardo began to introduce a more comprehensive training programme<sup>70</sup>. A wider

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<sup>66</sup> See, Consul, 'Catalogo de Educação e Treinamento', 1994, in which over 80 courses are listed. In addition to courses which are required for all, factory supervisors select other courses for workers from the manual, as required.

<sup>67</sup> Noted by Sr. Villella, Director Human Resources and in written responses to the HRM questionnaire (25/3/93 and 20/5/93).

<sup>68</sup> For example, a pilot test of polyvalency and a career plan was carried out in their Manuas microwave assembly facility (Consul Industrial da Amazonia, 'Programa Operador Multifuncional', 3/94). While higher skilled Embraco operations may warrant these, the company decided against them for factories II and III in Joinville and eventually also in Manuas.

<sup>69</sup> Interviews at Brastemp-São Bernardo HRM department, 26/10/93.

<sup>70</sup> See, Brastemp, Journal Brastemp, 'Mais Productividade, mais qualidade', no 9, 1992 p4 and

group of workers will have training options and these courses will impart a greater range of conceptual, organisational and 'attitudinal' skills.

In comparison, during the mid-1980s Enxuta quickly saw the need to provide greater worker training. Its meteoric growth, low skill levels in the local labour market and the unique nature of its products prompted them to establish an internal training school<sup>71</sup>. While the most skilled had received the bulk of their training outside the firm, they and the other skill groups were often required to undertake general and specific courses. The market collapse led to the closure of this facility and a more market-sourced approach to training. However, the recent promotion of a quality programme suggests that conceptual, organisational and 'attitudinal' modules may be offered in the future.

In line with optimistic modernisation theory, the greater level of responsibility and higher level of training at the advanced factories would suggest that their workers will be appropriately compensated. However, a comparison of wages does not support this view. First, starting from the most general level, no work category in any of these regions received wages which matched inflation over the period<sup>72</sup>. In fact, even in the highest average wage area in Brazil (São Bernardo) the real industrial wage index for metal workers nearly halved between 1989 and 1993<sup>73</sup>.

In terms of the two higher wage factories in this study, it is instructive to note that in 1993 over 60% of hourly workers at Consul and just over 50% of hourly workers at Brastemp-São Bernardo earned between 3-7 minimum salaries per month<sup>74</sup>. In comparison, it was estimated (in late 1992) that basic subsistence for an average family required around 6 minimum wages<sup>75</sup>. This confirms the low level of

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Brastemp, *Journal Brastemp*, no. 11, 1992 for a discussion of their new industrial training programme. Courses include modules on perception, communication, KAIZEN, *autocontrole* and 'times and methods'.

<sup>71</sup> Discussed in depth with Sr. Conte (former) HMR director of Enxuta (22/1/93).

<sup>72</sup> For Brazil and São Paulo see Chapter 2, Tables 2.2 & 2.4. For Santa Catarina and Rio Grande do Sul see Appendix B, Table B7.

<sup>73</sup> DIEESE, 'O Plano FHC e os Metalúrgicos do ABC', 2/94, Table 12B. This is based on amounts awarded in São Paulo Employer Federation (FIESP) accords.

<sup>74</sup> Consul S. A., 'Estatística de Recursos Humanos', 12/93. Brastemp, 'Recursos Humanos - Controle dos dados salariais e readjustes salariais', 1993.

<sup>75</sup> As reported in DIEESE, 'Salários e Distribuição de Renda no Brasil', 10/92, reporting DIEESE

wages being paid.

**Table 4.5: Hourly Worker Wages - Refrigeration, average wages per (200 hour) month, in \$ US, 1989 and 1993**

FACTORY / WORKER GROUP	1989	1993	Average % change p.a.
<b>BRASTEMP-SÃO BERNARDO:</b>			
a) Production Category:			
- unskilled	\$182	\$341	22%
- semiskilled	\$234	\$503	29%
- skilled	\$507	\$807	15%
b) Average Wages:			
- salary scale based	\$308	\$573	21%
- skill weighted	\$221	\$430	24%
<b>CONSUL:</b>			
a) Production Category:			
- unskilled	\$147	\$305	27%
- semiskilled	\$196	\$401	26%
- skilled	\$301	\$617	26%
b) Average Wages:			
- salary scale based	\$215	\$441	26%
* - skill weighted	\$169	\$344/365	26%/29%
<b>WAGE DIFFERENTIALS: (Brastemp over Consul)</b>			
a) Production Category:			
- unskilled	24%	12%	
- semiskilled	19%	25%	
- skilled	68%	31%	
b) Average Wages:			
- salary scale based	43%	30%	
* - skill weighted	31%	25%/18%	

**Source:** Calculated from wage statistics archives at each company and from responses to the company questionnaires.

**Note:** \* Shows skill weighted salaries for Consul II and III.

**Table 4.6: Hourly Worker Wages - Washing Products, average wages per (200 hour) month, in \$US, 1990 and 1992**

FACTORY / WORKER GROUP	1990	1992	Average % change p.a.
<b>BRASTEMP-RIO CLARO:</b>			
a) Production Category:			
- unskilled	\$165	\$229	19%
- semiskilled	\$256	\$355	19%
- skilled	\$389	\$512	16%
b) Average Wages:			
- salary scale based	\$270	\$365	18%
- skill weighted	\$190	\$253	17%
<b>ENXUTA:</b>			
a) Production Category:			
- unskilled	\$178	\$248	20%
- semiskilled	\$270	\$375	19%
- skilled	\$383	\$531	19%
b) Average Wages:			
- salary scale based	\$277	\$384	19%
- skill weighted	\$215	\$292	18%
<b>WAGE DIFFERENTIALS: (Enxuta over Brastemp)</b>			
a) Production Category:			
- unskilled	8.0%	8.0%	
- semiskilled	5.0%	6.0%	
- skilled	-1.5%	4.0%	
b) Average Wages:			
- salary scale based	2.6%	5.0%	
- skill weighted	13.0%	15.0%	

**Source:** Calculated from wage statistics archives at each company and from responses to the company questionnaires.

Tables 4.5 and 4.6 above present detailed, standardised wage statistics for hourly workers at the case study firms. Part A of the first two rows of each table shows the mean of the salary scale for the three skill categories. Part B of the first two rows of each table displays average wages - firstly on a salary scale basis and then weighted by the skill structures of each factory. The third row of each table

shows wage differentials (in percent) between these factories, for those same wage aggregates. A number of very telling points emerge from these statistics.

First, comparing producers of the same product type (something firms say they do when setting wages) it can be seen that wages at the traditional firms are higher than at the more modern ones. Brastemp-São Bernardo wages are between 18%-30% higher than at Consul and wages at Enxuta are between 5%-15% above those at Brastemp-Rio Claro. These differences are not at all explained by cost of living differences in the case of Consul and only partially made up for in the case of Brastemp-Rio Claro<sup>76</sup>.

However, workers at the most modernised firms appear to have lost a little less real purchasing power between 1989-92 than workers at the more traditional firms<sup>77</sup>. Moreover, average monthly overtime at Brastemp-Rio Claro in 1992 (19 hours) was much higher than that at the other three firms (Consul: 1 hour/Brastemp-São Bernardo: 8 hours)<sup>78</sup>. Yet by 1993 average monthly overtime at Brastemp-Rio Claro had fallen to about the same level (9 hours) as at Brastemp-São Bernardo (with Consul a bit behind at 6 hours).

Secondly, local labour market conditions and relative union power appear to be the strongest influences on wage levels. São Bernardo has a large concentration of industrial activity and the metal workers union is very combative there. Wage levels are thus lower outside of São Bernardo. However, while Consul and Brastemp-Rio Claro workers receive wages which are low relative to workers at comparable firms, their wage levels are equal to or above average metals wages in their local labour markets<sup>79</sup>.

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<sup>76</sup> See, Appendix B, Table B9.

<sup>77</sup> See Appendix B, Table B10. Metal workers real purchasing power loss between 1989-1992 in Rio Claro (15.4%) and Joinville (18.8%) was slightly less than that for the same category in Caxias (19%) and São Bernardo (19.4%)

<sup>78</sup> Figures obtained from (untitled) Brastemp statistical material/graphs, Central Administration Centre - CAB (Brastemp), São Paulo, 1993; and Consul SA, 'Estatística de Recursos Humanos', 1991-1993.

<sup>79</sup> At Brastemp-Rio Claro in 1992, when pay is standardised for hours, over 80% of occupations (particularly skilled ones) were above the local labour market average - Brastemp-Rio Claro, 'Pesquisa Salarial', 9/92. Consul wages, while held back between 1989-1991, have regained a level

The opposite is the case at Brastemp-São Bernardo and Enxuta. Wages at Enxuta are below the Caxias metalworkers average<sup>80</sup> and, while wages at Brastemp-São Bernardo are high in an absolute sense, many are paid at or below the local labour market average<sup>81</sup>. Yet, with high local labour market wage standards in São Bernardo, it still made great sense for Brastemp to relocate washing product production to a 'greenfields' site in the relatively unindustrialised town of Rio Claro.

What stands out in terms of Consul is that they pay broad job categories at both factory II and III the same amount for very different levels and types of responsibility. Any negative effects of this disparity may have been eased by the fact that in 1989 Consul promoted the removal of the existing union (the *Mecânicos*) from coverage of their workers and its replacement with a more compliant one (*Sinditherme*)<sup>82</sup>. The price that the company has paid for a compliant union appears to have been automatic, full inflation wage adjustments (since 1992). This may explain the recent higher level of average wage growth at Consul.

Consul's concern with union agitation may also be a reason behind the fact that higher skilled (and more militant) Consul workers have gained more in percentage terms than their São Bernardo counterparts over the 1989-93 period (see Table 4.5, column 4). However, skilled Consul workers (very few of whom are in factory III) have gained about the same rate of salary growth (thus a great deal more extra income in money terms) as their unskilled and semiskilled colleagues in factory III - just the ones who are being expected to perform the new tasks of production. In stark contrast, unskilled and semiskilled workers at Brastemp-São Bernardo have gained considerably more salary growth (in percentage terms) than skilled Brastemp-São Bernardo workers over the 1989-93 period.

Nevertheless, a relatively good local labour market wage at Brastemp-Rio Claro does not necessarily mean that workers will be motivated to perform 'beyond

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close to other major local metals factories in 1992-93 - Consul, 'Pesquisa Salarial', various years.

<sup>80</sup> Almost 30% lower than comparable sized local metals firms such as Eberle and Marco Polo - Caxias Metal workers unions records, 1993.

<sup>81</sup> Nearly 2/3 of the occupations researched received less than the local labour market average - Brastemp, 'Pesquisa Salarial, Horista Analise', Departamento Planejamento Recursos Humanos, 9/92.

contract', after all their wages are still very low. In terms of Consul III, the lack of wage disparities between factories might be expected to lead to a less than enthusiastic workforce in that factory. In an apparent attempt to counteract these potentially negative characteristics and promote a highly motivated workforce, the two most modern factories have introduced other types of employment conditions for the workers who remain in the factory.

At Brastemp-Rio Claro, in addition to a clean, quiet factory space, workers only work around 180 hours per month compared to a more standard 200 hours. Most importantly, as discussed below, a unique career development scheme has been introduced. Consul III workers also experience a clean, quiet ambient and particularly well designed ergonomical workstations. However, more in keeping with the critical literature, rather than developing schemes such as those at Brastemp-Rio Claro it relies more intensively on the careful screening of employees wishing to work at factory III.

Brastemp-Rio Claro's 'Development Plan for Hourly Workers' was introduced very soon after the factory opened (1990). As shown in Figure 4.5, it replaced a traditional task and wage structure with five new worker categories. Each of the new four 'operator' and the 'innovator' category has three wage and responsibility stages. Operators 1-2 are basically unskilled, operator 3 covers largely semiskilled tasks and operator 4 relates most closely to the skilled group. The 'innovator' is the most unique part of the scheme. While no 'innovators' were employed up to 1994, a person carrying out such a position will be expected to be able to carry out any task and takes on many of the organisational, production co-ordination and labour relations tasks previously confined to white collar staff.

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<sup>82</sup> This is fully discussed in Chapter 7.

**Figure 4.5: The Brastemp-Rio Claro Career Development Scheme - structure, work expectations and evaluation**

STRUCTURE	<ol style="list-style-type: none"> <li>1. Four 'operator' and one 'innovator' occupational scheme replaces traditional skill based task and wage structure.</li> <li>2. Each operator level has three stages with clear expectations of how long progression should take and what achievements are expected of workers.</li> <li>3. All skilled, semiskilled and unskilled hourly employees covered by scheme.</li> <li>4. Scheme and courses well advertised, explained and resourced.</li> </ol>
WORK EXPECTATION	<ol style="list-style-type: none"> <li>1. Operator One – all trainees and most new entrants; material movement, service assistant, cleaning and lubrication.</li> <li>2. Operator Two – basic production line, forklift/utility driver, stock assistants and SPC assistants.</li> <li>3. Operator Three – parts production, basic machine maintenance, auto mechanics, tool room assistants.</li> <li>4. Operator Four – electrical and mechanical maintenance and tool room workers.</li> <li>5. The 'innovator' - any task ; overview and organisational role for SPC, QC, stock flow/efficiency and subcell co-ordination. Input to worker evaluation and work assignment. Expected to be an important motivator of co-workers.</li> </ol>
EVALUATION	<ol style="list-style-type: none"> <li>1. Workers have regular evaluations based on a points scheme which determines promotion, employment prospects or even dismissal.</li> <li>2. Points are based on an equal weighting given to – training courses completed, development of operational skills and attitude and behaviour.</li> <li>3. Sub-cell leaders, innovators and supervisors provide input to work evaluation and training centre awards training credits.</li> <li>4. Firm considering allowing teams to decide on whether an employee joins their group, whether poorly performing workers should be dismissed or re-assigned and to provide input on co-workers attitudinal assessment.</li> </ol>

**Source:** Brastemp-Rio Claro, 'Poupança Evolução - Plano de Desenvolvimento de Horistas', (Rio Claro 1990); and discussions with human resource staff at the factory, 1993-94.

The 'Development Plan' ties together cellular production, new process techniques and the training system into a unique motivational scheme. Workers are given a clear expectation that if they perform they can expect promotion, perhaps

eventually to the prestigious level of 'innovator'. Workers are regularly evaluated on a point system which includes equal components for training courses, the development of operational skills and attitude and behaviour. While the training centre allocates training credits and team captains automatically get points, cells and subcells are responsible for the allocation of points for practical and attitudinal 'skills'. Cell leaders, 'innovators' and supervisors are responsible for this process.

The most radical part of this scheme relates to the evaluation system itself. For example, in 1993 the firm was considering making teams more responsible for allocating points for practical skills and behaviour - thus pitting one worker against another. Teams were also being considered as a vehicle for deciding whether a worker joined their group or whether they should leave it (or even the firm!). However, as a result of worker discontent over the amount of internal training and its equal weighting relative to workplace aptitude, in late 1993 there was talk that the prominence of training would be reduced and that the career scheme would be split so that the possibility of an unskilled worker rising to the top level would be lessened. Men had also complained that women (not trained in traditional skills but who were making extensive use of internal courses) were gaining 'unfairly'<sup>83</sup>. These aspects of the scheme suggests that the Brastemp-Rio Claro experience may also fit sceptical interpretations of modernisation.

Minimum educational entry levels are another element that the two most modern firms are using most intensively at their factories. Educational levels are very low in Brazil<sup>84</sup>. This is seen as a constraint, even on the performance of relatively low skilled factory work, and all of the case study firms professed a desire for more highly educated workers. However, Brastemp-Rio Claro has always used formal academic (but not technical) schooling as part of their entrance criteria and is now stipulating that all future entrants must have completed secondary school<sup>85</sup>. Those existing workers who have not completed secondary school must take classes at the

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<sup>83</sup> In fact these changes were made in 1994 - Brastemp-Rio Claro, 'Plano de Desenvolvimento de Horistas', 1st Revision, 2/94.

<sup>84</sup> For example, 37% of 20-24 year old Brazilians have less than or up to primary level education - DESEP, *Indicators DESEP*, (São Paulo, 1994), p87.

<sup>85</sup> As noted by Brastemp-Rio Claro HRM staff (Vilella and Adriana).

site to obtain this level. If not successful, a worker's future with the firm is far from certain.

In 1993 Consul also decided that all new entrants will require primary and some secondary education to have any chance of working there<sup>86</sup>. At Consul III a more strict application of the secondary schooling requirement has been applied since the factory's inception<sup>87</sup>. The factory had originally expressed a policy that none of the factory III employees should come from factory II<sup>88</sup>. However, as this came to be unfeasible selectors used educational levels, attitude tests and past 'work' histories to vet out any factory II applicant who might not be 'appropriate' for factory III<sup>89</sup>.

In this regard, Table 4.7 below demonstrates that the two most modern factories do employ a more educated workforce. However, there may be reasons to question this policy. This is because all semiskilled and unskilled workers at both factories start at the bottom level<sup>90</sup>. Even some skilled employees do not start at the same level they held at their previous employer<sup>91</sup>. Secondly, it is not clear that many of the skills demanded at these two factories require secondary academic education<sup>92</sup>. Technical training after the primary level may be more than adequate. Formal academic education entry standards may thus act more like a screen than a cognitive requirement.

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<sup>86</sup> Interview with Sr. Shamada, HRM Department, Consul, 13/5/93.

<sup>87</sup> As for footnote 86.

<sup>88</sup> As for footnote 86.

<sup>89</sup> Interview, Sr. Sergio, Consul factory III, 5/5/94.

<sup>90</sup> This is a condition of the Brastemp-Rio Claro Development plan. This also operates for Consul factory III for entrants from outside Consul.

<sup>91</sup> This was particularly pronounced at Brastemp-Rio Claro, as noted by HRM staff.

<sup>92</sup> A point freely admitted to by HRM staff at both plants, particularly by Sra. Adriana, Physiologist/Selection Officer, Brastemp-Rio Claro. This also became clear in an interview with Sr. Villella, Director Human Resources, Brastemp-Rio Claro, 9/6/93.

**Table 4.7: Educational Profile - Brastemp White Goods Factories, hourly workers, formal educational levels attained, 1993-4**

LEVEL/FIRM	Brastemp S. Bernardo	Brastemp Rio Claro	Consul - Total	Consul III
PRIMARY: Incomplete Complete	67.0% 14.0%	33.0% 23.0%	42.0% 21.0%	- 28.0%
SECONDARY: - some or all.	17.0%	42.0%	36.0%	69.0%
TERTIARY: - some or all.	2.0%	2.0%	1.0%	3.0%

**Sources:** Statistics provided by HRM departments in each factory.

It is also revealing to note that workers at the modern factories are considerably younger than at the older factories (25-26 years vs 32-37 years)<sup>93</sup>. This is only partially explained by the argument that younger people are more educated and thus more capable<sup>94</sup>. Young workers may be seen as more flexible and less likely to share a sceptical and combative approach to industrial relations that many older, more experienced workers may possess<sup>95</sup>. Thus at the modern firms a combination of youth and formal educational qualifications appear to be policies which the companies are using to more closely regulate their ILMs.

Despite also professing a desire to raise educational levels and entry standards<sup>96</sup>, Brastemp-São Bernardo and Enxuta had done little about this up to 1994. Driving supervision and high turnover policies are much more evident at these factories. However, at Enxuta, an additional form of labour use continues to be evident. As shown in Table 4.8 below, the firm employs a much larger proportion of

<sup>93</sup> Internal HRM statistics, all firms.

<sup>94</sup> For example, at the highly simplified production line for the Brastemp-Rio Claro 'beauty' product, workers are very young, they are all on the lowest 'operator' level and they are the most highly educated - Tables displaying these statistics for all areas of Brastemp-Rio Claro provided by Sra. Adriana, Psychologist / Selection Officer, Brastemp-Rio Claro, 1994.

<sup>95</sup> As noted by Sr. Villella, Director Human Resources, Brastemp-Rio Claro and HRM and factory staff at Consul III.

<sup>96</sup> For example, a 1993 Brastemp-São Bernardo study (Brastemp, 'Projecto Descoberta de Novos Talentos', 1993) identified the levels of schooling of present workers. The report's objectives (p1) were to provide information which would help in the generation of more favourable motivational outcomes for the company and educational/work development opportunities for workers.

women than Brastemp-Rio Claro (or than at the other factories). Task difficulty<sup>97</sup> and local labour supply do not explain this<sup>98</sup>. It appears to be a deliberate policy.

These observations may be explained by the union's adamant claim that women workers at Enxuta are paid around 13% less than men for work of the same type<sup>99</sup>. There are also claims that, when business was booming, women were used on night shifts (illegal) and that a lot of abuse occurred by lowly educated but very powerful supervisors<sup>100</sup>. Many of these supervisors were otherwise unemployed football players who had helped the Enxuta team win the national indoor football competition in the mid 1980s.

**Table 4.8: Hourly Workers by Sex - Enxuta and Brastemp Rio Claro, in % terms, 1985-93**

YEAR	ENXUTA		BRASTEMP – RIO CLARO	
	% Female	% Male	% Female	% Male
1985	52%	48%	-	-
1989	55%	45%	-	-
1990	56%	44%	14%	86%
1991	55%	45%	23%	77%
1992	49%	51%	30%	70%
1993	50%	50%	22%	78%

**Source:** Company records and interviews.

In conclusion on these issues, Enxuta and Brastemp-São Bernardo are still relying on fairly traditional job structures, employee relations and employment conditions. Wages are reasonable by sector standards but low in relation to local labour markets. Few serious concerns about turnover and training emerged until quite recently and workers are given little opportunity for more involvement. When vehicles for greater participation do emerge workers remain very sceptical. The

<sup>97</sup> The Enxuta products are much smaller and lighter than the other firms and women are more evenly distributed amongst sections and skill levels at Enxuta than at the other firms.

<sup>98</sup> Labour market statistics (O. Conte, 'Características da Mão-de-obra em Caxias do Sul' *Destaques do Mês*, CIC-Caxias, 5/92) for the region show a slight rise in the proportion of women in the local labour market in the late 1980s but this is little different to other areas. Rising family income constraints in the 1980s may be the major reason for this.

<sup>99</sup> As demonstrated by the women's officer for the Caxias Metal Workers Union, 6/93.

<sup>100</sup> Noted by the union and a former social services officer of Enxuta.

situation at the other partially modernised factory, Consul II, is slightly different due to the firm's different training history and factory II's connection to more modernised parts of Consul operations.

In contrast, the two advanced firms appear to be offering their workers superior task structures, employee relations and employment conditions. However, beyond the wage issue, a number of other caveats still remain to an analysis which is still based on firm wide data. Skill opportunities and improvements to employee relations and employment conditions do not appear to be as open or generous as many might predict. These points serve to confirm the scepticism noted within recent Brazilian literature on modernisation.

First, the nature of the 'voice' workers have been given has clear limits. Its focus is the firm and quality and it appears to leave little real opportunity for dissent, particularly in relation to an independent role of unionism. Secondly, questions remain as to the level of worker input and over how much supervision has really changed. For example, supervision is less overt at Brastemp-Rio Claro and Consul III. However, the decentralisation of responsibility (and related sanctions) within teams and the career scheme at Brastemp-Rio Claro may put greater pressure on workers and lead to division and competition within their ranks.

Thirdly, both of these 'flagship' factories appear to be offering employment conditions which are improvements on the past but which more rigorously select out a particular type of employee. For example, skill groups are separated to a larger degree, training has a strong ideological flavour, selection criteria are highly geared to younger, higher educated but inexperienced workers and the education levels being asked for do not appear to match cognitive job requirements. This may be efficient for the firm. However, in terms of managerial intent it suggests both little altruism and an anti-union stance.

Fourthly, while the situation at Brastemp-Rio Claro looks more like an ILM than any of the other firms, the price of being part of this is strict conformity and great effort. While these characteristics are being traded for employee benefits, many

of these benefits (i.e. stability/career progression) remain expectational. A final point, which further highlights the ambiguous nature of Brastemp-Rio Claro's modernisation model, is that while women are paid the same wage as men for the same work they are strictly concentrated in the unskilled operator category and in areas of operations which offer fewer prospects of progression<sup>101</sup>. Despite its enlightened appearance relative to Enxuta, the most sought after and promising avenue of career progression for women at Brastemp-Rio Claro is if they win the internal beauty contest<sup>102</sup>. The prize is a white-collar job as a marketing representative for Brastemp.

#### **4.4 COMPANY LEVEL MODERNISATION INDICATORS**

Even if firm level outcomes are not based on attitudes such as allegiance, comprehensive modernisation may still lead to better levels of quality, productivity and efficiency, higher skill levels and reduced turnover and absenteeism. This section deals with each of these themes in turn. These indicators do highlight some ambiguous aspects of the modernisation process. However, overall, the analysis confirms this chapter's growing view that the sample can be divided on a comprehensive/partial basis.

##### **4.4.1 Productivity, Efficiency and Quality**

The two most modernised firms have been very successful. Indicators of productivity and efficiency support the efforts they have made. For example, Consul (both factories) gained ISO certification in early 1994. However, while Consul II has gained from the advances made within Consul generally, by the early 1990s it was a less efficient factory than its more Fordist competitor - Brastemp-São Bernardo.

As shown in Table 4.9 below, during the 1980s Consul usually produced at a higher level of productivity than Brastemp-São Bernardo. However, by 1993

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<sup>101</sup> An issue clear from observation.

<sup>102</sup> Interviews bore this out. See for example, Brastemp, Bras-notícias, no. 80, 9/93, entitled "II

Brastemp-São Bernardo produced at a level 35% higher than their Joinville counterpart. Despite Consul's technological superiority, crowding and product heterogeneity meant that over the 1985-93 period Brastemp-São Bernardo productivity grew by 116% compared to 38% at Consul. The other factor which may explain this result is that high unemployment and industrial turmoil in São Bernardo made workers work harder. The greater reliance on overt supervision at that site may have also helped to make this possible.

**Table 4.9: Productivity in Refrigeration Production - Products per Hourly Worker per day, Brastemp-São Bernardo and Consul, 1985-93**

YEAR	BRASTEMP - FACTORIES I+II	CONSUL FACTORIES I+II	CONSUL - FACTORY III
1985	0.769	0.892	-
1986	0.978	0.990	-
1987	0.923	0.968	-
1988	0.982	0.956	-
1989	0.582	0.997	-
1990	1.059	1.115	-
1991	1.595	1.296	-
1992	1.448	1.106	-
1993	1.663	1.232	2.601

**Source:** Calculations based on data from company records and interviews.

In comparison, by 1993 Consul III was already producing refrigeration products at a level 56% higher than Brastemp-São Bernardo and over double that of Consul II. The differences between these three factories suggest that technologies, techniques and layout combine to improve productivity. One of these features on its own is not enough.

The actual productivity result at Consul III is probably greater than that noted in Table 4.9 as the factory produces many of Consul II's internal refrigeration 'shells' and some of their plastic inputs. Also, as many Consul III workers have come from

Consul II, for these workers productivity has risen by a massive 192% between 1985-93. Furthermore, in terms of the expansion of capacity at factory III, management expected that by 1997 a 1000 strong workforce will be producing 4.5 products per day per worker<sup>103</sup>.

Other indicators strengthen this picture of modernisation outcomes at the refrigeration producers. For example, accident rates (per 100 days) have fallen in all factories. However, Brastemp-São Bernardo rates are now higher than those at Consul (18.35 vs 12.44)<sup>104</sup>. The slower rate of modernisation at Brastemp-São Bernardo is also confirmed by the fact that scrap and stock levels there remain high whereas at Consul scrap is only 1.7% of raw materials and stocks of inputs have fallen to 2 days in reserve<sup>105</sup>. Consul III, on the other hand, has achieved accident rates and scrap and stock levels much better than at Consul II. Stock of inputs represent about a days production needs and scrap levels sit at around 1.5% of raw material<sup>106</sup>.

At the traditional washing product factory (Enxuta) efficiency has also improved over the period. Stock levels have declined from 20 to 4 days, moulds are changed faster, plastics produced more quickly and product movement has been sped up<sup>107</sup>. However, despite the recent promotion of new quality systems, productivity indicators remain far inferior to Brastemp-Rio Claro. Even after standardising work hours and adding all of Enxuta's (simpler and smaller) products to the equation, Brastemp-Rio Claro still has a productivity rate over two times Enxuta's (Table 4.10).

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<sup>103</sup> Consul, *Informativo*, Edição Especial - Fabrica III, no. 80, verão 1993, p4 and 11.

<sup>104</sup> Consul, 'Estatísticas de Recursos Humanos', monthly, 1989-93. Brastemp, 'Indicadores de Recursos Humanos', 1991-93 and from graphical material supplied by the Brastemp Central Administration Centre (CAB), (São Paulo, 1993).

<sup>105</sup> Interviews with Srs. Marcio and Medeiros, Consul Engineering, and factory managers, 1993-94.

<sup>106</sup> According to Sr. Sergio, Consul factory III, 5/5/94.

<sup>107</sup> Interview with Sr. Fonseca, Production Manager, Enxuta, 14/6/94.

**Table 4.10: Washing Product Productivity, Products per Hourly Worker per day, 1992**

INDICATOR	BRASTEMP- RIO CLARO	ENXUTA
PRODUCTS/WORKER/DAY:	3.1	1.5

**Source:** Company interviews and derived company statistics.

#### 4.4.2 Skills and Occupational Structures

This study's estimates of skill levels in the factories (Tables 4.11-4.13 below) suggests conflicting outcomes in relation to the skills-modernisation debate. For example, the two older factories (Enxuta and Brastemp-São Bernardo) have higher formal (job classification based) skill levels than their more modern competitors, Brastemp-Rio Claro and Consul II (Tables 4.11 & 4.13). On the other hand, the most technologically advanced factory (Consul III) has the largest proportion of semiskilled workers and the lowest unskilled proportion of all the factories (Table 4.12).

However, these observations must be strongly qualified. First, Brastemp's decision to undertake most of their group wide tooling functions in São Bernardo explains much of why Brastemp-Rio Claro has a low skill proportion and only maintenance workers within its high skilled group. It also helps to explain Brastemp-São Bernardo's high and rising skill proportion. Secondly, while Consul III's high skill group would be higher if tooling was done there, the reason for the factory's high semiskilled and indirect proportion is because of their (higher skilled) net input trade with factory II. In fact, management recognises that when capacity utilisation rises above its present level (20%) the proportion of repetitive, direct production jobs will rise dramatically<sup>108</sup>.

Nevertheless, other features of these estimates stand out. These appear to confirm the view that modernisation is putting new tasks and responsibilities in the hands of unskilled and semiskilled workers. For example, Consul overall has reduced

<sup>108</sup> Consul, *Informativo* - Fábrica III, (1993), p10-11.

its indirect worker (and also the semiskilled) category between 1989-93 (Table 4.11). Much of this may be due to the fact that direct production workers are carrying out the checks previously done by quality control workers. The integration of other semiskilled tasks into direct, unskilled jobs may also be behind this. Accordingly, the unskilled proportion and the direct production category have risen.

In terms of hierarchies, Consul and Brastemp-São Bernardo have very similar white-collar proportions (Table 4.11). However, Consul uses a slightly leaner administrative structure. They also make greater relative use of engineers (in spite of Brastemp's ADC). Comparing the three factories, the effects of Consul's decision to reduce supervision and promote greater worker responsibility appears evident (Tables 4.11 & 4.12). Supervision proportions are very low in Consul III and they have fallen in Consul II. These trends may also suggest that, while some skilled workers may have lost some of their maintenance tasks to the semiskilled, they are more responsible for organisational tasks than in the past. In stark contrast, supervision levels are high and have risen at Brastemp-São Bernardo.

**Table 4.11: Occupational Distributions - Refrigeration, Brastemp-São Bernardo (BT) and Consul total (CN), 1989 and 1993**

WORKER CATEGORY	1989		1993	
	BT	CN	BT	CN
WHITE COLLAR TOTAL:	1474	1395	921	868
- % engineers / technicians	25%	21%	23%	30%
- % management / admin.	68%	67%	65%	60%
- % factory supervisors	7%	12%	12%	10%
HOURLY WORKER TOTAL:	5021	5762	1828	4267
1) Direct Production % *	72%	65%	71%	78%
2) Indirect Production % *	14%	21%	13%	11%
3) Maintenance/tooling %	9%	8%	12%	9%
3) Other Hourly %	5%	6%	4%	2%
SKILL ESTIMATES:				
1) Skilled %	10%	9%	13%	9%
2) Semiskilled %	13%	16%	12%	11%
3) Unskilled %	77%	75%	75%	80%
SUPERVISORS AS A % OF TOTAL FACTORY WORKFORCE -	2.2%	3.1%	6.3%	2.1%

**Sources:** Company records, verified in interviews with human resource staff, factory supervisors and from factory observation.

**Notes:** \* Direct production includes mainly unskilled occupations. Indirect production includes mainly unskilled occupations.

**Table 4.12: Occupational Distribution - Consul Factory III, 1993**

WORKER CATEGORY	CONSUL FACTORY III
HOURLY WORKER TOTAL:	363
1) Direct Production % *	66%
2) Indirect Production % *	23%
3) Maintenance and/or tool room %	9%
4) Other hourly worker %	2%
SKILL ESTIMATE:	
1) Skilled %	10%
2) Semiskilled %	30%
3) Unskilled %	60%
SUPERVISORS AS A % OF TOTAL FACTORY WORKFORCE:	1.4%

**Sources/Notes:** As for Table 4.11

Turning to the washing product producers, Enxuta's more traditional production process and Brastemp-Rio Claro's links with Brastemp-São Bernardo are evident from their skill structures (Table 4.13). First, Enxuta has a lower unskilled and higher semiskilled and skilled proportions than Brastemp-Rio Claro. Due to the Brasmotor link, Brastemp-Rio Claro employs almost solely maintenance workers whereas Enxuta has both tooling and maintenance operations.

Another reason for Brastemp-Rio Claro's lower skill proportions is that some maintenance functions may be carried out by semiskilled machine operators. Outsourcing is also greater at this factory and some testing/quality functions may now be carried out by the semi/unskilled. However, despite these differences between the two companies, the higher skill categories have declined and the unskilled proportion has risen at both factories over the period.

In terms of hierarchies, the large proportion of administrators (and low proportion of engineers) employed at Enxuta stand out. Like Consul, Brastemp-Rio Claro's operations are strongly linked to the prominent role played by engineers. Finally, as with the refrigeration comparison, Brastemp-Rio Claro employs few and fewer supervisors relative to the more traditional Enxuta whose supervisor proportion is rising. This appears to confirm the fact that higher skilled workers at Brastemp-Rio Claro may have taken on some of these co-ordinating tasks and that the company's training focus and cellular system are effective.

**Table 4.13: Occupational Distributions - Washing Products, Brastemp-Rio Claro (RCL) and Enxuta (EN), 1990 and 1992**

WORKER CATEGORY	1990		1992	
	RCL	EN	RCL	EN
WHITE COLLAR TOTAL:	108	568	141	241
- % engineers / technicians	57%	17%	47%	13%
- % management / admin.	37%	75%	48%	79%
- % factory supervisors	6%	8%	5%	8%
HOURLY WORKER TOTAL:	332	1597	414	500
1) Production Workers:	82%	85%	91%	87%
- semiskilled %	3%	11%	3%	10%
- unskilled %	79%	74%	88%	77%
2) Skilled Maintenance / tool room %	10%	13%	7%	11%
3) Other Hourly %	8%	2%	2%	2%
SUPERVISORS AS A % OF TOTAL FACTORY WORKFORCE -	1.8%	2.7%	1.7%	3.8%

**Sources/Notes:** As for Tables 4.11 and 4.12.

In summary, based on this firm level analysis, comprehensive modernisation does appear to have given all three skill groups new tasks and responsibilities. In addition, both factories have reduced supervision levels and occupational hierarchies to a much greater extent than the other firms. However, administrative decisions appear to explain much of the firm level differences in overall skill levels. Moreover, as with workers' attitudes to new responsibilities, the degree to which workers are more skilled and whether they have been compensated for these new skills must await the more detailed sample analysis in Chapter 5.

#### **4.4.3. Labour Turnover and Absenteeism**

Modernisation policies are expected to include a desire by management to reduce labour turnover<sup>109</sup>. This is because of the investments the firm has made in training and the assumption that if the employer demonstrates more commitment to

<sup>109</sup> Turnover is defined as follows. A 50% annual turnover rate means that the average post has a new externally contracted worker once every 2 years. Alternatively, 50% of posts were replaced by workers from the external labour market during that year.

workers they will be more motivated to go ‘beyond contract’. Turnover, when instigated by workers, is thus a measure of a worker's attachment to the firm and/or of a worker's impression of one employer relative to another. This too is expected to be lower the more modernised a firm.

Turnover rates continue to be very high in Brazil<sup>110</sup>. Yet the case studies support the view that the modernisation policies of these firms have brought about and been based on reduced turnover (Table 4.14 below). All firms' turnover rates declined over the period<sup>111</sup>. However, Consul III has obtained the lowest rate and the rate at Brastemp-Rio Claro is also low and well below its more traditional competitor (Enxuta). A conscious policy to retain workers appears to have been made by firms as they modernise.

**Table 4.14: Labour Turnover - all case study factories, average for all hourly workers, annual % rates, 1989/90 and 1992/93**

FACTORY / YEAR	1989 / 1990	1992 / 1993
BRASTEMP-SÃO BERNARDO	20.4% /	/ 8.4%
CONSUL - total - factory III	23.0% / /	/ 5.7% / 1.5%
BRASTEMP-RIO CLARO	/ 13.6%	2.4% / 12.5%
ENXUTA	/ 68.0%	61.2% / 51.6%

**Sources:** Calculated from monthly and yearly employment data from each firm and/or provided by company staff in response to the questionnaire.

A close look at related statistics for the firms shows other important trends. For example, despite a lower level of modernisation, by 1993 Brastemp-São Bernardo had less absenteeism (1.9% of total hours vs. 2.25%) than Consul II<sup>112</sup>. In

<sup>110</sup> See Chapter 2, Table 2.6 and Appendix B, Table B8.

<sup>111</sup> This has even led to lower turnover rates at Brastemp-São Bernardo than the average for their local labour market e.g. rates in the São Bernardo metals labour market were over 20% in 1992 - DIEESE, *A Categoria em Numeros*, 9/92, Table 10, p19. A comparison of Table 4.14 with Appendix B, Table B8 also shows that in all firms, except Enxuta, labour turnover at the case study firms is now appreciably lower than the manufacturing sector averages for their respective states.

<sup>112</sup> Consul, 'Estatísticas Recursos Humanos', monthly, 1991-94. Brastemp, 'Indicadores de Recursos Humanos', 1991-94, CAB, São Paulo.

1989 this figure was higher at Brastemp-São Bernardo. The rise in absenteeism at Consul might indicate worker dissatisfaction with something there, since 1989. On the other hand, lower absenteeism at Brastemp-São Bernardo may be a risk averse worker response to a particularly depressed local labour market, one in which the employer in question closed parts of its operations (transferring them to Rio Claro) in 1989/90.

In summary, the most modern firms are generally achieving what they now seem to prefer, a more stable and apparently motivated workforce. For example, the turnover result at Consul III is most clearly like what optimistic modernisation hypotheses would suggest. Absenteeism (1.32%) is below both other refrigeration factories and worker instigated turnover is, up to now, zero<sup>113</sup>. However, this has only come about after the company no longer had to deal with a militant union and after many of that union's supporters had been 'purged' from Consul. Brastemp-Rio Claro also has a conscious policy to minimise company and worker instigated turnover<sup>114</sup>. Yet, dissatisfaction appears to be emerging from somewhere as their turnover rate rose to a level higher than either Consul or Brastemp-São Bernardo in 1993 (12.5%). Factors responsible may include aspects of the career and evaluation scheme but also the large drop in available overtime in 1993<sup>115</sup>.

#### **4.5 CONCLUSION - A NEW BRAZILIAN MODEL FOR PRODUCTION?**

As summarised in Tables 4.15-4.16, this chapter's detailed analysis of modernisation in these firms has confirmed many aspects of an optimistic view of modernisation. First, as in other areas of Brazilian industry, there are clear signs that companies are following a path being pursued in other countries. New management strategies, technologies, techniques and layouts are being combined to great effect for quality and productivity. Furthermore, those factories which take a comprehensive approach (Brastemp-Rio Claro and Consul III) are performing much better than partial modernises (Brastemp-São Bernardo, Consul II and Enxuta).

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<sup>113</sup> Interview, Sr. Sergio, Factory III, 5/5/94.

<sup>114</sup> A point stressed by Brastemp-Rio Claro HRM staff.

**Table 4.15: Factory Typologies and Outcomes - Summary Table: Refrigeration, 1994**

Indicator / Factory	Brastemp-S. Bernardo	Consul – II	Consul – III
1) Management style and structures	Relatively hierarchical and closed	Some reduction in hierarchies; more participative	Flat structures, open relations; quite participative
2) Technology, techniques and layout	Older and not integrated	mixed / not integrated	New and integrated
3) Workplace and human resources policies	Mainly a wage based relation / recent changes	Some new tasks/training	New tasks, training and workplace ambient
4) Supervision	old / overt	newer style	New and open
OUTCOMES:			
1) Productivity = products p. worker p. day	1.7	1.2	2.6
2) Turnover = % per annum	8.4%	6.0%	1.5%
3) Wages = US\$ per month; skill weighted	\$US 430	\$US 344	\$US 365
4) Supervision = % of factory employment	6.3%	2.1%	1.4%
5) Skill level: - % skilled - % semiskilled - % unskilled	13% 12% 75%	9% 11% 80%	10% 30% 60%

<sup>115</sup> As noted in subsection 4.3.3

**Table 4.16: Factory Typologies and Outcomes - Summary Table: Washing Products, 1993**

Indicator / Factory	Brastemp-Rio Claro	Enxuta
1) Management style and structures	Open and participative	Closed, hierarchical paternal / recent changes
2) Technology, techniques and layout	New, automated and integrated	Older/less automated / not integrated
3) Workplace and human resource policies	New tasks, benefits and opportunities	Few concerns for work pressure or conditions
4) Supervision	Open /less overt	Old style/ overt
OUTCOMES*:		
1) Productivity	3.1	1.5
2) Turnover	2.4% (12.5% 1993)	61.2%
3) Wages	\$US 253	\$US 292
4) Supervision	1.7%	3.8%
5) Skill Levels:		
- % skilled	7	11
- % semiskilled	3	10
- % unskilled	90	79

\* Outcome measures as shown in Table 4.15.

Secondly, by offering conditions and relational opportunities such as more participation, less supervision, more agreeable workspaces and the prospect of career progression/employment stability, workers are labouring more efficiently at these firms. They are also less prepared to leave the firm and are delivering lower absentee levels, greater productivity, less scrap and fault levels and are often involved in production improvements.

Relatedly, training and cell structures are helping to provide the link between the new physical environment of production and the behaviour needed to make it work as planned. While Brastemp-Rio Claro relies more on techniques and Consul more on process technologies in their modernisation approach, both are training workers very intensively. Tying career development to these attitudes within a decentralised cell model has been used most intensively at Brastemp-Rio Claro whereas Consul relies on the close vetting of new employees to achieve their result.

Both firms, however, have integrated many new tasks into the production line and the work of the semiskilled and unskilled.

While this situation still needs to be explored more deeply (especially on a subjective basis), this appears to signal a new and implicit effort bargain between modernised firms and their workers. While components of this bargain differ between the two factories, it appears that workers are being 'offered' new benefits as the firm becomes more reliant on their skills and motivation. However, there are a number of caveats to this picture.

First, in terms of an overall model, it appears as if technology and techniques are not enough in themselves. Brastemp-São Bernardo's more consistent Fordist model and Consul II's poor layout mean that the more traditional employer (Brastemp-São Bernardo) is appreciably more productive. Secondly, many of these employee relations and employment condition benefits are not as generous, open or democratic as they might seem or as has been predicted by optimistic theory. Modernising firms appear to have reacted to their increased reliance on workers with new policies of 'persuasion' and control.

For example, training and participatory initiatives are strongly tied to a firm based perspective. On the other hand, as with tighter selection criteria, teams and career schemes appear to offer better opportunities to evaluate and control workers. The segregation of women to particular occupations and the vast growth in young workers in these factories may assist these 'policies' and act to hold down potential opposition.

In respect to this last issue, where wage growth has been relatively good (Consul) this policy seems to be more related to the continuation of an old objective of keeping unions out of the workplace (and quelling potential skilled worker militancy) than because of new skills and responsibilities. Locating in a low wage, low unionism, 'greenfields site is the way this has been done at the other comprehensively modernised factory (Brastemp-Rio Claro).

In terms of skills, the most modern firms have removed many tasks from their operations. New tasks appear to have been added to workers' jobs but here too management does not appear to have recognised this in pay structures. One firm (Brastemp-Rio Claro) has made some allowance for these changes in their occupational structure. However, even within this scheme new skills are still not well remunerated or functionally recognised to any appreciable degree as yet. Due to these issues and Brasmotor's and Consul's decision to remove higher skilled workers from the actual factory space, the debate about skills and modernisation remains inconclusive.

In terms of external factors, despite the advances made by the most modern firms, any expectation of a greater export market presence appears to be constrained by the role of TNCs in this sector in Brazil. While Whirlpool has had an arguably positive effect on the process and management policies of the three Brasmotor firms, the product and market focus 'imposed' on them may act to limit skill and employment advances in this industry in Brazil.

Consequently, while two of the firms are comprehensively modernised, managerial intent must be questioned. They have chosen an 'easy' modernisation path. Past industrial traditions and other contextual factors have minimised how far Brazilian employers have to go in respect to the balance, explicitness and who is included within the new effort bargain. Similarly, labour use and allocation developments question the emergence of an enlightened firm keen on introducing either greater democracy or a long term 'skilling' approach. More broadly, these points confirm the sceptical literature's suggestion that local factors, industrial relations traditions and the role of foreign capital are important, real and active forces within the 'politics of modernisation'.

Finally, while a new implicit bargain may have emerged, the above caveats and the bargain's (still) expectational features may mean that workers are less than wholly attached to their work and/or the modernised firm. On the other hand, even the limited changes to tasks, employee relations and employment conditions which have been introduced have produced what appears to be a large change in work

behaviour, if not attitudes. This highlights the large degree of flexibility Brazilian workers already 'possess' and suggests that work conditions in the past have been quite poor. However, it is impossible to make sufficiently definitive conclusions on these issues without detailed primary data about work and attitudes. Accordingly, the next chapter takes a closer look at these debates about work and modernisation using the responses of a sample of workers from the (comprehensive and partially modernised) factories analysed in this chapter.

## CHAPTER 5:

### THE CHANGING NATURE OF WORK

#### 5.1 INTRODUCTION

The previous chapter suggested that, while mediated by contextual factors, comprehensive modernisers have instigated many changes and achieved results which support the optimistic hypothesis. Yet it was also clear that these firms were not keen to involve unions in the process. Moreover, support for the optimistic hypothesis within the workplace was not conclusive as it was not based on primary data about workers' experiences and attitudes.

Accordingly, this chapter uses worker responses to look at the first main attitudinal link implicit to the optimistic modernisation hypothesis<sup>1</sup>. That is, what type of work attitudes connect modernisation policies and their final outcomes for the firm? The chapter thus addresses two questions - how has work changed for the sample and how have these changes affected attitudes to work?

On the basis of this chapter's review of evidence on the specific work themes noted in Chapter 2, this chapter argues as follows. On the one hand, some of the evidence about changes to work appears to support optimistic theory and that a new implicit bargain has been established with workers at the comprehensively modernised factories, particularly the semiskilled. This conclusion is amply illustrated by the view of a highly motivated semiskilled operator of a very advanced, Italian metal shaping system at Brastemp-Rio Claro. He consistently replied, when asked about work there, 'It's great like this, isn't it!'<sup>2</sup>

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<sup>1</sup> The original interview schedule is included as Appendix D. Due to sample size and the depth of analysis in other parts of this research, no multivariate analysis was carried out. However, Chi-squared tests were carried out on many of the cross tabulations used in this chapter. The significance level was taken as 5% and results which meet this criterion are reported within the discussion or in tables within the text.

<sup>2</sup> Interview with Brastemp-Rio Claro worker, RCL12, 9/93.

On the other hand, each of the skill groups have particular preferences, problems and experiences. On a firm basis, the example of the partially modernised Consul II adds to this uncertainty about the modernisation proposition. The firm is less productive than the comprehensive modernisers and the older Brastemp-São Bernardo and it uses many older style work systems. However, it generates many attitudinal results much better than the comprehensive modernisers, particularly its ultra-modern sister factory, Consul III. The comments of a semiskilled worker from Consul II highlights the attitudes of many of their number – ‘no I don’t want to work in Consul III. They don’t have my occupation there, work is more intense... and the pay is no better!’<sup>3</sup> Finally, just as striking is the fact that many workers at the two most modernised firms question the nature of their new task and development opportunities and how they are evaluated, often to a much greater degree than is the case at the partially modernised plants.

These observations serve to question managerial intent. Even comprehensive forms of modernisation seem ‘conservative’. Employers have responded to the risk that they may be more dependent on workers’ skills and motivation with ‘benefits’ which are either minimal or which are built within new structures of surveillance. These results also suggest that any new bargain is neither fixed nor certain. While needing corroboration with evidence about attitudes to the employer (Chapter 6), responses suggest that allegiance has not replaced control as the attitudinal ‘glue’ behind the much more productive experiences of the comprehensive modernisers.

This chapter has three substantive sections. Section 5.2 sets the scene for the detailed analysis of workers’ responses through a presentation of the sample’s overall preferences and problems in work and with a restatement of the specific themes about work discussed in Chapter 2. Section 5.3 considers workers’ responses to questions about specific changes to their tasks, employee relations and conditions of employment. Section 5.4 considers how they feel about these changes. Section 5.5 summarises and concludes the chapter.

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<sup>3</sup> Interview with Consul II worker, CII10, 11/93.

## 5.2 ANALYSING THE EXPERIENCE OF WORK

### 5.2.1 Preferences about Work – An Overview of the Sample

As desired, the sample is quite representative. All workers had at least 2 years experience at the firm, all sections of factory operations are represented and sex, age and overall unionisation distributions closely fit the situation at each firm<sup>4</sup>. Skill levels are slightly higher than reality. However, this was necessary so as to get a statistically significant number of skilled workers within the analysis<sup>5</sup>.

Based on this sample, responses to general questions about work preferences and problems provide a useful overview of the sample. These results provide clues as to the types of work characteristics which could be ‘exchanged’ for enhanced firm performance within any new bargain. These general responses are also important to keep in mind because, as noted in Chapter 4, modernisation included different issues and mechanisms at each of the two comprehensive sites.

First, in terms of preferences, all workers were requested to rank a list of eight work features<sup>6</sup>. These characteristics were salary, stability, training, ambience, mobility, career opportunity, involvement and an ‘other’ category to capture any other issue they felt might be missed by this list. Another question asked was if and to what degree any of these issues were a problem in their current job. As can be seen from Table 5.1 below, for the sample overall the three most important characteristics of work were salary, stability and career opportunity. On the other hand, the three most mentioned problems at work were the system of evaluation, remuneration and career

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<sup>4</sup> The structure of the sample is shown in Appendix D, Table D1. This last issue is shown in Chapter 7, Table 7.1.

<sup>5</sup> For example, the skill structure of each firm's sample was fairly even - i.e. 22%-28% skilled, 24-36% semiskilled and 36%-52% unskilled. However, the overall skill structure of the sample (25% skilled, 29% semi-skilled and 46% unskilled) is considerably higher than that reported for the population in Chapter 4 (Tables 4.10-4.12). While this may temper the degree to which some skill sensitive issues can be compared with Chapter 4's general observations, it allows the skill division to also be used in this analysis. On the other hand, unionisation by firm is so skewed that this disaggregation cannot be used on its own.

<sup>6</sup> Composite indicators were constructed by aggregating the number of first and second preferences each indicator received, by group.

opportunity

**Table 5.1: Work Preferences and Problems, sample and firm rankings**

FIRM /S	N	Work Preferences	Problems at Work
SAMPLE TOTAL:	93	Salary Stability Career	Evaluation Salary Career
COMPREHENSIVE MODERNISERS:	31		
Brastemp-Rio Claro		Salary/Stability Career Ambient	Evaluation Career Salary
Consul III		Salary Stability Training/Involvement	Salary Evaluation
PARTIAL MODERNISERS:	62		
Enxuta		Salary Career Ambient	Salary Evaluation/Career Training
Brastemp São Bernardo		Stability Salary Involvement	Salary Career Stability/Evaluation
Consul II		Salary/Stability Training/Career Involvement	Evaluation Stability

**Source:** Worker interviews.

Despite the separation of these questions and the non-disclosure of the following question, these results suggest that there will be a positive correlation between what a worker sees as important and what is a problem. However, as noted in many studies, these responses also highlight the importance of reward and employment stability to workers. In this regard, while Brazilian wages continue to be low, Chapter 4 noted that comprehensive modernisers often ‘suggest’ that workers can expect greater employment stability.

Moreover, the system of evaluation stands out as a particularly important response across all firms. This suggests that many workers are concerned about fairness within their firms' reward systems. As shown in Chapter 4, within the comprehensively modernised firm in particular, this reward system is based on more than just wages. It thus appears that, if well managed and applied, non-wage issues could be effectively traded off by firms wishing to improve quality, efficiency and productivity.

Within these general responses there is some evidence to suggest that this is happening. For example, differences in feelings of stability of employment show support for the proposition that modernisation policies include or lead to greater stability (Table 5.1). Most respondents from the two more traditional firms said stability of employment was a problem compared to less than half of those from the other firms (Pr = 0.003).

Secondly, one of the comprehensively modernised firms (Brastemp-Rio Claro) may have more successfully traded off wages for other aspects of their bargain (Table 5.1). For example, pay registers as the greatest problem at Brastemp-São Bernardo and Enxuta whereas workers at Brastemp-Rio Claro and Consul II are happier with remuneration. In terms of Brastemp-Rio Claro, this conflicts with actual salary data while at Consul III it suggests that the firm needs to adjust some aspect of its bargain if they wish worker satisfaction to improve. These results also suggest that regional factors are central to wage determination in Brazil.

There are, however, other responses which question the nature and success of the effort bargain at the comprehensively modernised firms. For example, while many fewer responses were made to the 'problem' question, the system of evaluation is of greater relative concern to workers at the most modern firms (Table 5.1, final column). This is surprising and conflicts with a vision that the most modern firms have both more objective and better systems of reward.

Moreover, that involvement is of little importance to Enxuta and Brastemp-Rio Claro workers ( $Pr = 0.042$ ), relative to the other firms, may suggest that their level of involvement has not changed. Yet, if Brastemp-Rio Claro workers are comparing their present and past employer this seems surprising. However, it is not possible to determine whether they like or dislike the form of involvement at their factory based on these general questions.

On a skill basis (Table 5.2 below), it appears that all groups value salary and stability very highly and that evaluative issues are a concern. However, the ambience of the workplace is relatively more important to the skilled than to the other two groups ( $Pr = 0.010$ ). On the other hand, the unskilled and semiskilled are more alike, placing much higher importance on career opportunity than their more skilled counterparts ( $Pr = 0.037$ ). Thus, this disaggregation of the data may also be important to consider.

**Table 5.2: Work Preferences and Problems, by skill group**

Skill Groups	N	Work Preference	Problem at Work
Skilled	23	Stability Ambient Salary	Evaluation Salary Ambient
Semiskilled	27	Salary Stability Career	Evaluation Salary Career
Unskilled	43	Salary/Career Stability	Salary Evaluation Career

**Source:** Worker interviews.

In summary, general responses of the sample point to the possibility of a new implicit bargain at the most modernised firms. However, the evaluation of certain work issues appears to be concerning workers at those same locations. The data also suggests that skill specific responses may add to the analysis of this bargain. The next subsection notes the specific themes which the rest of this chapter uses for a more detailed analyses of the work experiences of these workers.

## 5.2.2 Specific Themes for an Analysis of Changes to Work and Work Attitudes

The themes which are hypothesised to be ‘better’ within the modernised firm, and which must be analysed, are – skills/tasks, employee relations, employment conditions and the attitudes associated with these changes. In this regard, the literature noted a number of important debates on each of these areas. First, in terms of tasks, more sceptical writers suggest that even if work is more varied it may become more difficult, demanding, faster and intense. Questions have also been raised about who takes on new tasks and whether such skills are adequately compensated. Accordingly, this chapter asks the sample – what new tasks, who takes them on, are they recognised as skills and are labourers working smarter, rather than harder, and with more interest and satisfaction?

Secondly, in terms of employee relations, the literature questions how much greater say workers have, what they have say over and whether they are more responsible and autonomous. The chapter seeks to explore work specific aspects of these themes by analysing workers’ responses to questions about supervision and how it has changed. The nature of their involvement in work and workplace issues is also considered. Together with the analysis of workers’ attitudes to the firm (Chapter 6), these responses will provide a clearer picture of whether employee relations in the modernised firm offer a more democratic environment or just a more onerous system of control.

Thirdly, while the literature’s scepticism about wages levels has been confirmed, other indicators have shown that the most modernised firms are making suggestions of stability and career development reminiscent of employment conditions within an ILM. Nevertheless, debate remains centred around the degree to which new training, education and career initiatives represent a good thing or just a more subtle web of control. Consequently, questions asked about work aspects of these themes in this chapter concern the nature of training and education received and the types of promotions workers have had. In a more subjective vein, workers’ responses to questions about their perceptions of progress and opportunity are considered. As with

employee relations issues, combined with the analysis of Chapter 6 these responses will allow a much clearer view of the attitudinal basis of the implicit bargain.

The following two sections of this chapter analyse workers' responses to these specific questions about work. The comprehensive/partial split of the sample provides the key test of the modernisation hypothesis. Section 5.4 works through questions about attitudes to work while section 5.3 lays the ground for this through a discussion of more factual task/skill, employee relations and employment condition changes experienced by the sample.

## **5.3 CHANGES TO WORK**

### **5.3.1 Skills and Tasks**

This subsection looks at 'skills' in both a broad and a narrow sense. The first group of questions provide information about overall skill changes, their complexity, degree of conceptual emphasis and the relationship between skills and their recognition. These themes also provide insights into debates about ILMs.

The subsection then analyses more specific responses. For example, what tasks are workers from the most modernised firms taking on? Furthermore, which workers are most affected and how? What stands out from the analysis is that most responses to these questions about 'The New Factory Worker' and 'New Skills and their Recognition' either support or do not conflict with an optimistic view of change.

### **New Skills and their Recognition**

As shown in Table 5.3 below, three indicators of skill change show support for the view that the policies of the comprehensively modernising firms are having the effects theory would suggest. For example, the skills used by their workers are more complex than at the other firms (Table 5.3, column 2). Secondly, those same workers

are using conceptual and mixed manual/conceptual skills to a significantly greater extent than traditional factory workers (Table 5.3, column 3)<sup>7</sup>. Relatedly, it is important to note that the semi/unskilled are using conceptual, evaluative skills to a greater degree than the skilled (Pr=0.077). These results suggest that conception and execution skills are being recombined to some degree as modernisation progresses.

Thirdly, it appears that labourers at the most modern firms (and Consul II) have had to accept a greater degree of occupational downgrading on entering the firm than have those at the more traditional firms (Table 5.3, column 4). This may be hard for these workers to accept. However, it may indicate that skill requirements have changed most in the more modernised factories and that a ‘floor’ level entry requirement, characteristic of an ILM, operates at those plants.

**Table 5.3: New Skills and Skill Recognition, by firm type**

Firm Type/ Issue	Skill Complexity	Mix of New Skills	Occupational Downgrading *
COMPREHENSIVE MODERNISERS:	More complex (Pr = 0.094)	Manual and conceptual (Pr = 0.090) or solely conceptual (Pr = 0.004)	Moderate to high degree; 20% to 33%
PARTIAL MODERNISERS:	Simpler	Less mixed and more solely manual	Negative to moderate degree; 10% to 23%

**Source:** Worker interviews.

\* Responses from workers at the comprehensive modernisers includes Consul II

On the other hand, a comparison of skill upgrading for the sample during their tenure at the firm adds ambiguity to this picture (Table 5.4 below). For example, changes in the sample’s skill structure have occurred almost solely by a movement from the unskilled to the semiskilled category (Table 5.4, row 1). However, the Consul

<sup>7</sup> Separating tasks and qualifications (and training) into manual, conceptual, simple, complex etc involved the following steps. First, all interviewees were asked to list courses undertaken (wherever), certification gained or being worked towards and the tasks they carried out in the course of their job. Secondly, the companies’ training modules (and external courses referred to) were examined and divided

group saw the largest skill upgrading, not only to semiskilled positions but also to the skilled category (Table 5.4, last row). All efforts were made to employ a consistent judgement about skill classifications in the research<sup>8</sup> and greater length of tenure may explain why the probability of skill upgrading is so much better at Consul than for workers at Brastemp-Rio Claro<sup>9</sup>. However, it does not explain the better skill upgrading result for Consul II workers relative to the other partially modernised firms, particularly as these workers also use simple and manual skills in similar proportions to the two most traditional firms (Table 5.3).

**Table 5.4: Skill Structure, first and present job, sample and by firm**

	First Job – Skill Level	Present Job – Skill Level
Sample	21% skilled 6% semiskilled 73% unskilled	25% skilled 29% semiskilled 46% unskilled
	First Job-% skilled/ semiskilled	Present Job- % skilled/ semiskilled
FIRM: Brastemp-Rio Claro	32% skilled/semiskilled	48% skilled/semiskilled
Enxuta	30% skilled/semiskilled	50% skilled/semiskilled
Brastemp- São Bernardo	40% skilled/semiskilled	64% skilled/semiskilled
Consul Total	8% skilled/semiskilled	52% skilled/semiskilled
Consul II	12% skilled/semiskilled	53% skilled/semiskilled

**Source:** Worker interviews.

In summary, these results confirm that new factory regimes are changing the types of skills that jobs require to those with a more conceptual and complex emphasis. After entering the firm, skill upgrading and the recombination of manual and conceptual skills appear to be occurring. The two most modernised firms are doing this to a significant degree with workers using complex groupings of conceptual, but also

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on this basis.

<sup>8</sup> See explanatory note in Appendix D.

<sup>9</sup> Appendix D, Table D1.

manual/conceptual, skills. The older the firm the more it appears to rely on manual skills.

In this regard, the complex and more conceptual nature of modernising firms' new skill needs may be a reason why many workers have had to accept a downgrading in occupational status upon entering these firms. Consul workers are doing relatively better (in terms of the probability of progress) than are workers at the other firms. However, Consul II workers use manual and simple skills much like the other partially modernised firms.

### **The New Factory Worker**

More specific questions about tasks broadly confirm that the 'new factory worker' (i.e. those with the greatest change in their responsibilities) are predominantly semiskilled labourers and employees of the most modernised factories. However, there are also task changes which are better explained by company specific decisions and the requirements of the particular product or process. These issues are reviewed below.

First, as summarised in Table 5.5 (column 2) below, workers at the most modernised factories appear to have taken on new (informally allocated) tasks to a significantly greater degree (87% vs a 67% sample average) than have workers at the partially modernised plants. These responsibilities were noted as being - monitoring, testing, filling in for others and minor maintenance. Being allocated informally they are less likely to be reflected in wages/promotion and are therefore a better indicator of skill change due to modernisation (than formal ones). Within these categories, testing and quality duties were more prevalent at Brastemp-Rio Claro and the two Consuls ( $P = 0.04$ ). This confirms the analysis of skills in Chapter 4.

**Table 5.5: The Prominence of New Tasks, by firm type**

	New (informally allocated) tasks	New Technology use	New Technique use
COMPREHENSIVE MODERNISERS	Large number of new quality tasks (Pr = 0.012)	High level of integration (53% - 75%)	High level of integration (66%-72%)
PARTIAL MODERNISERS	Fewer tasks; less quality related	Low level of integration	Low level of integration

**Source:** Worker interviews

Secondly, sample results confirm a view that comprehensively modernised firm workers are being increasingly asked to use new technologies (Table 5.5, column 3). In this regard, the vast majority (77%) of the sample replied that new technologies were now being used in their work. However, this must be tempered by the fact that many respondents considered their older systems to be ‘new technologies’<sup>10</sup>. More significantly, at Brastemp-Rio Claro a high 53% of respondents used CNCs and robotics and these aggregates were similarly high (50% and 25%) at Consul III. These observations also fit Chapter 4’s vision of workers' new tasks at these factories.

Thirdly, the greater application of new techniques to production in the most modernised firms is also made clear by the sample's responses (Table 5.5, column 4). Nearly half of the sample (46%) confirmed that they used new organisational techniques such as JIT/Kanban, preventative maintenance and Statistical Process Control (SPC). However, of a total 45 positive responses a disproportionately large number were from Brastemp-Rio Claro (18) and Consul (12), particularly Consul III (two thirds of their number).

In addition, it appears that the semiskilled have been the principal skill group to have been required to take on new tasks and responsibilities. As noted in Table 5.6 below, while all skill groups have new informal responsibilities, the response of the semiskilled was particularly high (78%; Table 5.6, row 1). In terms of technologies, the semiskilled had such responsibilities to almost the same overall level as the skilled (Table 5.6, row 2). In terms of techniques (Table 5.6, row 3), the semiskilled again stand

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<sup>10</sup> The Enxuta sample recorded the highest score to new technologies (90%). However, this odd result is explained by the low level of technology which originally existed there and the types of changes

out as the pivotal group, registering a significantly greater use of new techniques (59%) than is reflected by their proportion in the sample (25%).

**Table 5.6: The Prominence of New Tasks, by skill group**

New Task:	Key Responses by Skill
New, informal responsibilities?	All high (67% average), Semiskilled (78%) the highest.
New technology use?	Highest – skilled/semiskilled (100%-80%)
New technique use?	Highest – semiskilled (59%) closely followed by the unskilled (53%)

**Source:** Worker interviews

Despite these results, a number of other aspects of the sample’s responses nuance this picture of modernisation and the ‘new factory worker’. As suggested by Table 5.7 below, task allocation is often company, product or process specific rather than one based on the level of modernisation per se. Furthermore, as suggested in Chapter 3, external factors such as the origin of TNC influence may also have induced management to chose a more technological (rather than a technique based) approach to production. Such a choice will influence the nature of tasks in production.

**Table 5.7: Specific New Tasks and Duties, by firm**

Specific Tasks and Duties	Key Responses by Firm
Quality/velocity monitoring (informal expectation)	Highest = Brastemp - Rio Claro/São Bernardo (50%-68%) (Pr=0.001)
Maintenance assistance (informal expectation)	Highest = Brastemp - São Bernardo/Consul (31%-38% vs 25 % average)
Filling in at other work stations (informal expectation)	Highest = Consul (67% vs 42 % average)

**Source:** Worker interviews

For example, responses suggest that workers at the two Brastemp factories (a traditional and modern firm) are more likely to have informally allocated quality and velocity monitoring functions (Table 5.7, row 1). In contrast, while the maintenance function is not very prevalent at any firm, it is an important high skill issue and appears to be more widespread in the more complex refrigeration process (both Consuls and

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introduced over the case study period.

Brastemp-São Bernardo) than in washing product manufacture (Table 5.7, row 2). Finally, Consul workers are more likely to be asked to fill in at other workstations than are workers at the other factories (Table 5.7, row 3). This observation reflects the greater degree to which Consul (especially Consul III) operations are dominated by the integrated line than at Brastemp-Rio Claro.

### **5.3.2 Employee Relations**

In terms of employee relations within the modernised firm, optimists suggest that workers will be more free to make suggestions, that decision making will be more participative and that the issues involved may move beyond productivity considerations to matters of greater concern to workers' well being. Moreover, modernisation is assumed to lead not only to less overt supervision but to better supervisory relations. These themes are reviewed below.

#### **Supervisory Relations**

It appears that the process of modernisation has had a positive effect not only on the proportion of supervisors within the modernised factory (Chapter 4) but also on the nature of relations between workers and their superiors. For example, a majority (56%) of the sample felt that supervisory relations had improved, 36% that they were the same and, 8% that relations had deteriorated (Table 5.8, row 1, column 3). Consul workers (both factories) responded most favourably to this question (for 74% relations had improved) with Brastemp-Rio Claro responses the next highest at 64% (Table 5.8, row 2, column 3). In comparison, only around half of Enxuta and Brastemp-São Bernardo respondents agreed, making the split between the two most modernised plants/Consul II and the two more traditional firms significant ( $Pr = 0.082$ ).

**TABLE 5.8: Supervision Level and Degree of Change, by sample, firm and skill**

	Level of Supervision	Supervision Change
Sample	57% = good/very good; 33% = OK; 10% = bad/poor	56% = improved; 36% = the same; 8% = worse
By Firm:	Good – Very Good:	Improved:
1	Brastemp-Rio Claro (72%)	Consul II/III (74%)
2	Consul II (65%)	Brastemp-Rio Claro (64%)
3	Enxuta/Consul III (50%)	Enxuta (50%)
4	Brastemp-São Bernardo (40%)	Brastemp-São Bernardo (48%)
By skill:	Highest = skilled/semiskilled vs unskilled (Pr = 0.023)	Highest = semiskilled (63% vs 56% unskilled and 48% skilled)

**Source:** Worker interviews.

Secondly, it also appears that, in general, the more modernised a firm the better will be supervisory relations. For example, while 57% of the sample said their relation with their supervisor was good to very good, 33% "OK" and, 10% bad to poor (Table 5.8, row 1, column 2), Brastemp-Rio Claro recorded the highest positive response (72%) with Consul II close behind at 65% (Table 5.8, row 2, column 2). Brastemp-São Bernardo scored lowest on this measure (40%). In addition, Enxuta (15%) and Brastemp São Bernardo (20%) were the only firms where workers said relations were bad or poor. The higher the skill the more a worker was likely to enjoy good to very good supervisory relations but in this respect the semiskilled are being treated much more like the skilled than the unskilled (Table 5.8, row 3, column 2).

Yet, while Enxuta workers' less favourable response (50%) about their present style of supervisory relations is as expected, what is surprising is that half (3) of the Consul III group felt much the same (Table 5.8, row 2, column 2). Thus, workers at Brastemp-Rio Claro and Consul overall feel well treated relative to those at the more traditional firms (Pr = 0.072). However, when responses at the two Consul factories are compared the results do not fit this picture. One might have expected that workers at Consul III were working under more, rather than less, favourable supervisory conditions than those at Consul II. Why this is not so may be explained by the consideration of other factors such as the small, transparent group structures within which Consul III labourers work or by other constraints on their autonomy.

In summary, supervisory relations at Brastemp-Rio Claro and Consul overall are the most favourable and these have improved relatively more than at the two traditional factories. While questions remain about the reasons for Consul III workers' less positive opinion of supervision at that plant, it still appears clear that supervisory relations at Brastemp-São Bernardo and Enxuta are poorer and have improved the least. Modernising firms are concentrating on re-modifying supervisory relations, based on this data.

### Worker Involvement and Participation

Many of the sample's responses to questions about the nature of their involvement also confirm a view that comprehensively modernising firms have changed work in the ways that optimistic theory would predict. For example, while most workers (93%) make some sort of positive suggestion, within this aggregate it appears that a larger number of workers' colleagues are involved at the comprehensively modernising firms and Consul II than at the two older factories (Table 5.9, column 2, below). Workers from the traditional firms are more likely to talk only to their supervisor.

**Table 5.9: Indicators of Involvement and Participation, by firm**

Firm	Suggestions to....	Suggestions involve employment issues?	Relative importance of product and production based suggestions ?
Brastemp-Rio Claro Consul II / III	Supervisor and work mates / team (Pr = 0.082)	Often – on training and education (Pr = 0.003)	Product and major process related (Pr = 0.046)
Brastemp-São Bernardo / Enxuta	Supervisor only	Rarely	More minor process related (Pr = 0.004)

**Source:** Worker interviews.

Secondly, the more modernised a firm the more likely are workers to be involved in decisions affecting (certain) employment conditions (Table 5.9, column 3). For example, Brastemp-Rio Claro respondents are much more involved in decisions

about training (79%; Pr = 0.006) and educational (88%; Pr = 0.019) opportunities than are respondents from the other firms. The Consul sample's response rate, while lower than at Brastemp-Rio Claro was sufficiently higher than at Enxuta and Brastemp-São Bernardo to again make the comprehensively modernised-Consul II/traditional split significant (Pr = 0.003). This confirms the analysis of Chapter 4 and might, if corroborated by subjective evidence, vindicate the policies of the modernised firms, particularly Brastemp-Rio Claro.

Thirdly, almost all workers make suggestions for changes to the product and production process (88%; Table 5.10, row 1). These suggestions fall into three main types - minor product related (37%), minor process related (83%) and major (38%). Yet, once again (Table 5.9, column 4) workers at Brastemp-Rio Claro and both Consuls make a significantly greater proportion of their suggestions for major changes and traditional factory workers more than proportionately make suggestions for minor process improvements.

However, a number of other indicators temper the optimism implied by the above results. For instance, the making of such suggestions was quite uniform and proportionate within the sample and the most modernised firms did not stand out (Table 5.10, row 1). Moreover, 75% of workers wanted to make even more suggestions (Table 5.10, row 2). This large latent desire by workers to make more suggestions was also high and not significantly different at Brastemp-Rio Claro (69%) to what it was at the other factories.

**Table 5.10: Suggestion Types and Desires, key responses.**

Suggestion Indicator:	Key Responses
Make suggestions for product and process improvements?	Sample = 88% yes Little variance by firm (84% % - 96 %)
Want to make more suggestions?	Sample = 75% yes Range by firm – (60% Enxuta – 69% Brastemp-Rio Claro - 88% Brastemp-São Bernardo)
Do you make ‘critical’ suggestions?	Sample = 61% yes By Firm = average of 61%, lowest at Brastemp-Rio Claro (24%), highest at Consul III (100%)

**Source:** Worker interviews

Finally, before it is assumed that what is being observed represents a substantial upward shift in workers' participative opportunities as a result of employers greater openness, a number of qualifications must be made. First, the suggestion question for which modernised firm respondents replied more significantly (Table 5.9, column 4) applied only to suggestions which may enhance profitability. Secondly, as noted in Chapter 4, many workers in the most modernised firms have implicit or explicit 'incentives' to make suggestions or sanctions when they don't do so.

These caveats are borne out by responses to a question about 'critical' suggestions (Table 5.10, last row). For example, a much smaller 61% of the sample spoke out critically about issues relating to production or employment conditions. However, Brastemp-Rio Claro stands out in this respect as very few (24%) of their number spoke out critically. While leaving the content of these critical suggestions until later, this either means that Brastemp-Rio Claro workers are happy or not prepared to speak out.

### **5.3.3 Employment Conditions and the Internal Labour Market (ILM)**

Two key aspects of employment conditions which the literature identifies as important within modernisation are a greater emphasis on training/education and the provision of greater employment stability, such as is implied by career schemes. These are also key aspects of ILM's. In this regard, Chapter 4 suggested that comprehensively modernising firms (particularly Brastemp-Rio Claro) appeared to be providing these benefits and structures for their workers.

This section subjects this firm level view to greater scrutiny. The analysis suggests that the training, education and job progression/continuity experiences of workers superficially support the modernisation schema. However, other indicators suggest that improved employment conditions are not as freely available as might be assumed. Managerial intent (beyond efficiency and enhanced control reasons) in introducing these policies is questioned on the basis of this evidence.

## Training and Education - A New Agenda?

As noted in Chapter 1, firms will be more inclined to invest in worker training the more confident they are that they can recoup such costs. Ways they can improve this probability is if they minimise labour turnover and if training imparted is less transferable within the general labour market (e.g. specific and/or conceptual training). Chapter 4 noted that the firms investing most heavily in new technologies have policies and conditions which have encouraged very low turnover. Further, they are also the ones investing most heavily in training and education. However, the most modernised firms are also switching formal training towards less accredited and possibly less transferable skills. The following paragraphs examine the sample evidence on these issues.

Three indicators about education and training provision appear to support the policies of these firms described in Chapter 4. First, while 83% of the sample has received some formal training at the firm, the level of training provision fit a comprehensive-Consul II/traditional split of the sample (Table 5.11, column 2). At Enxuta this proportion was quite low (55%), at Consul it was 100%, Brastemp-Rio Claro 92% and at Brastemp-São Bernardo it was still a high 80% of respondents .

**Table 5.11: Summary Indicators of Training Received, Educational Levels and Educational Upgrading, by firm**

Firms	Got Formal Training	Degree of Conceptual Training	Educational levels / educational upgrading
Brastemp-Rio Claro Consul II/III	Highest degree (Pr = 0.002)	Higher (Pr = 0.039)	High / some upgrading
Brastemp-São Bernardo / Enxuta	Lower degree	Lower	Low / no real change

**Source:** Worker interviews.

Secondly, in terms of types of training, 77% of respondents attended conceptual courses, 64% also manual modules and 26% courses with both a manual and conceptual emphasis (Table 5.12, row 2). The majority (96%) of respondents attended simple courses but 70% also received more complex types of instruction. Most

importantly (Table 5.11, column 3), as is indicated from responses about the use of skills, workers from the two most modern firms (and Consul II) are disproportionately represented in the conceptual module category.

Thirdly, the issues of educational levels and their improvement since entering the firm also show quite varied results. On entering the firm a majority of the sample (68%) had only up to and including primary education, 14% had some secondary schooling and 18% had secondary schooling and above (Table 5.13). Most importantly (Table 5.11, column 4), only at the more modernised Brastemp-Rio Claro and Consul has there been an appreciable rise in educational levels since entering the firm and this has brought the total sample average up to - 18% secondary but incomplete and 29% secondary and above (Table 5.13, rows 1 and 2).

These results appear to confirm the expectations of optimistic theory. Yet there are other aspects of workers' experiences which are not so clear cut. For example, unlike the skill use responses reviewed earlier, workers at the more modern firms do not receive a greater amount of mixed (manual/conceptual) training and workers at the traditional firms do not predominately receive just formal manual training (Table 5.12, row 1). Manual skills still remain of great importance to the modernised firm. Furthermore, these firms do not engage in more complex formal training than the traditional firms to any significant degree (Table 5.12, row 2).

**Table 5.12: Types of Training, by sample and firm**

Type of Training	Key Responses
Manual based	Sample = 64%; Range: 50% (Consul III) – 70% (Consul II)
Mixed manual / conceptual	Sample = 26%; Range: 17% (Brastemp-Rio Claro) – 50% (Consul III)
Simple	Sample = 96%; Range: 91%-100% by firm
Complex	Sample = 70%; Range: 60% (Brastemp-São Bernardo) – approx. 70% (Brastemp-Rio Claro/Enxuta/Consul II) – 83% (Consul III)

**Source:** Worker interviews

If the use of complex and mixed skills does in fact remain of greater importance at the modern firms, this (as the skill use results suggest) is probably more evident in the on-the-job receipt and demonstration of these attributes. Consequently, a continuing informality of skill development means that factory management may have considerable discretion over who is given the opportunity to perform these more responsible and complex skills. Supervisors, even at Brastemp-Rio Claro, still have a strong influence on who actually takes on formal training courses. Perceived flexibility, enthusiasm and acceptance of company policy may thus drive decisions over both actual skill acquisition and task allocation. Based on Chapter 4's review of the comprehensive modernisers' selection and monitoring policies, this would not bode well for the prospects of unionists.

Finally, a larger percentage of the unskilled (rather than the semiskilled) in this sample received further secondary education since being at their firm. In contrast, a larger proportion of the semiskilled have gained further primary education than have the unskilled. The result is that, whereas when they joined the firm the presently unskilled had the lowest education profile, the unskilled now have a higher education profile than the semiskilled (Table 5.13, last row).

**Table 5.13: Education Levels, now and on entering firm, by sample, firm and skill**

Grouping	Education Level now (%): Some secondary / Secondary +		Education on Entrance (%): Some secondary / Secondary +	
Sample	18%	/ 29%	14%	/ 18%
Comprehensive/ Consul II:	13%-24%	/ 40% - 43%	8% - 22%	/ 13% - 32%
Partial Modernisers:	5% - 28%	/ 10% - 20%	5% - 20%	/ 10% - 16%
Skill Level:				
Skilled –	22%	/ 61%	30%	/ 35%
Semiskilled-	18%	/ 15%	11%	/ 15%
Unskilled-	16%	/ 21%	7%	/ 12%

**Source:** Worker interviews

In summary, this evidence on training and education provision supports a view that modernising firms are more actively trying to structure and control their ILMs. Compared to the past, when the focus was almost solely on skilled worker turnover, the

situation of semi/unskilled workers is now of great concern to firms. Firms are becoming much more active in the provision of the training and academic education for these workers, perhaps due to the failure of the public sector to provide an adequate level of general and specific skills.

However, the sample results also appear to confirm the view that education and training are being used on a basis which may not be in line with the requirements of jobs. Moreover, combined with the firm and attitudinal focus of training policies (Chapter 4), these results act to question whether the skills workers in modernising firms are receiving make them any more employable in other firms. Aspects of the corollary to this issue – enhanced internal opportunities – are considered below.

### **Career and Job Progression**

Another element of modernised employment conditions relates to the propensity of such firms to offer greater employment stability. One way of doing this is via a career scheme. While Chapter 4 noted that Brastemp-Rio Claro was the only firm with an explicit career scheme, most of the sample (89%) had been promoted at least once since joining the firm and there was no significant difference between the firms on this level.

General responses in section 5.2 noted that the most modernised firms have made workers feel more stable than do workers at the partially modernised firms. This theme is investigated in greater detail in Chapter 6 on attitudes to the employer. However, what stands out in relation to work issues is – when workers are given a greater feeling that their job is secure (through promotion) where are they being promoted to? Does this confirm the greater internal opportunities that theory suggests workers at modernising firms are receiving?

In this respect, for the sample overall, 76% are staying in the same section on promotion and 24% are moving section (Table 5.14, column 2). However, workers at the two most modernised firms are almost solely staying in the same section of their

factory whereas significant minorities of respondents from the other factories (e.g. Consul II - 42% - and Brastemp-São Bernardo - 36%), have been promoted to other factory sections (Table 5.14, column 3). Furthermore, the probability of a semiskilled/skilled worker staying in the same section was considerably higher than for the unskilled (Table 5.14, column 4).

**Table 5.14: Promotional Destination, by sample, firm and skill**

Promotions	Sample	By Firm Type	By Skill Level
To the same section	76%	Comprehensive modernisers (Pr=0.010)	Skilled and Semiskilled (Pr = 0.084)
To another section	24%	Partial modernisers	Unskilled

**Source:** Worker interviews

If it can be assumed that working in a different section on promotion is an advantage (e.g. for skill development) it would appear that the unskilled are the greatest recipients of such opportunities. Even if their promotions only imply multitasking, these workers could be expected to have a considerable degree of task flexibility asked of them in the future. On the other hand, promotion within the same section may be a reward 'given' by modern firms to well performing workers. Conversely, therefore, what may be happening is that less favoured (but still adequate) employees are being more regularly shuffled between different but equally lowly skilled areas of operations.

In summary, as with the issue of training and education opportunities, there appears to be some evidence to support the optimistic hypothesis in respect to promotional decisions. The semiskilled continue to appear to have benefited, this time from continuity of work section, and the comprehensive modernisers are keeping their key workers at work stations in which they have already developed basic skills and familiarity. Yet it is the unskilled who are being required to shift more regularly to other parts of factory operations. This may not be helpful to their skill development. However, what still needs further analysis are the attitudes of these workers to the tasks, opportunities and relational environments outlined above.

## **5.4 ATTITUDES TO WORK IN THE MODERNISED FACTORY**

This section adds important subjective evidence to this analysis of the changing nature of work. Themes which still require exploration are – are workers labouring smarter rather than harder? Secondly, even if work is considered to be more difficult, do workers have more interest in their new work tasks – are they more satisfied? Thirdly, how do they see their opportunities for progress?

This analysis of these issues gives a more sceptical view of the effect of modernisation on workers. The division of the sample on a comprehensive/partial basis is becoming increasingly irrelevant as the analysis works down into a consideration of attitudes. The data which provides this impression on the three questions noted above comes from three groups of responses – from those relating to progress and opportunity (5.4.3), from responses about the specific tasks of modernised firm workers (5.4.2) and from general questions about impressions of work overall (5.4.1).

### **5.4.1 Industrial Labour - Working Harder, Smarter and Happier?**

In terms of work overall, the sample's responses suggest that the more relevant issue is not whether workers are labouring smarter or harder but are workers labouring harder, smarter and happier. On this basis, responses continue to illustrate the growing prominence of the semiskilled category (Table 5.15 below, column 3.) However, it is also clear from Table 5.15 that the split of the sample on a comprehensive/partial basis does not support an optimistic view of attitudes.

**Table 5.15: Impressions of Work Overall, by firm and skill**

Work is.....	Highest 'Yes' response by firm	Highest 'Yes' response by skill
Harder ?	Brastemp-Rio Claro (56%)	Skilled (Pr = 0.054)
More intense?	Brastemp-Rio Claro/ Consul III/ Brastemp-São Bernardo; (Pr = 0.025)	Semiskilled/Skilled (Pr = 0.034)
Faster?	Enxuta (75%)	Semiskilled / Unskilled (Pr = 0.034)
Less monitored?	Brastemp-Rio Claro / Consul II; (84% - 88%)	Skilled / Semiskilled (Pr = 0.010)
More responsible?	Consul II/III and Brastemp- São Bernardo; (83% - 84%)	Skilled / Semiskilled (Pr = 0.007)
More interesting?	Consul II (94% vs 85% average)	All (> 80%), especially semiskilled (89%)

**Source:** Worker interviews.

For example, almost half of the sample (47%) felt that their job was now harder than in the past (Table 5.15, row 1). At Brastemp-Rio Claro this feeling was the most pronounced. This may be partly explained by the previous observation that they have taken on more complex new skills than are required at other firms and/or as a result of dissatisfaction at that workplace.

Secondly, the semiskilled/skilled and workers at Brastemp-Rio Claro, Consul III and Brastemp-São Bernardo (the two newest and oldest firm) were significantly more inclined to say that work had become more intense (Table 5.15, row 2). This is not surprising when the types of technologies and tasks introduced into the two most modern factories, and for these skill groups, are remembered. What stands out is the fact that Brastemp-São Bernardo workers responded similarly. The rise in perceived work intensity is probably related to other factors at this firm.

Thirdly (Table 5.15, row 3), 58% of the sample felt that work speed had increased and this was particularly pronounced at Enxuta (75%). This confirms what

was suggested about conditions at Enxuta in Chapter 4. Line operators (basically the unskilled group), but also the semiskilled, were more inclined (than the skilled) to say that work speed demands had increased (65%).

Fourthly (Table 5.15, row 4), while the two most modern factories and Consul II use lower levels of supervision than the other two firms, results to a question about monitoring show both expected and unexpected results. For example, most of Brastemp-Rio Claro (84%) and Consul II (88%) workers felt that work was now less monitored. However, 2 of the 6 Consul III workers felt that work was now more monitored, a result more like that of Brastemp-São Bernardo and Enxuta respondents (33%)<sup>11</sup>.

As direct supervision proportions are very low at Consul III it may be that, due to the small number of workers in that factory, employees felt that work performance was more visible than at the factory they had come from (i.e. Consul II). Alternatively, more monitored may have meant new work pressures due to the requirements of the integrated and automated line technology being used. This may be supported by the fact that it is not them who operate the 'stop-go' conveyor system at that plant.

Furthermore, on the issue of monitoring, firms do seem to monitor skilled workers less than others. Feelings of being less monitored fall with rising skill level (Table 5.13, row 4, column 3). However, as suggested by modernisation theory, results from this sample confirm that this was most pronounced for the skilled and semiskilled compared to the unskilled ( $Pr = 0.010$ ).

Fifthly, a high 80% of the sample felt that work had increased in responsibility (Table 5.15, row 5). This was more so at Consul (83%) and, even more surprisingly, at Brastemp-São Bernardo (84%). The more skilled a worker the more likely they were to agree with this proposition ( $Pr = 0.018$ ), particularly for the semiskilled/skilled relative to the unskilled.

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<sup>11</sup> Nevertheless, due to the small size of the Consul III sub-sample, tests only show up as significant

Finally, to a question about more interest in their work, many workers responded positively (85%; Table 5.15, row 6). This response was highest at Consul II (94%) and lowest at Brastemp-São Bernardo (76%). Workers at the old São Bernardo plant do seem to be under a great deal of pressure to perform in their dirty, noisy and relatively disorganised workspace. Moreover, it is highly significant that work interest is insignificantly different at the comprehensively modernising firms than at the more traditional firms (Table 5.15, row 6, column 2). On the other hand, significant proportions (over 80%) of all skillgroups now had more interest in their work, especially the semiskilled (89%; Table 5.15, row 6, column 3).

Making an inter-question comparison leads to a number of important observations. For instance, the semiskilled (like the skilled) are more than proportionately taking on more difficult, intensive and responsible tasks and for this they are less monitored. One interpretation of this would be that the semiskilled are being entrusted with a level of work control more like what would generally only be attributed to the skilled. Furthermore, these greater responsibilities are not affecting workers' interest in their work. The existence of a new implicit bargain for semiskilled workers - one which involves a package of trade-offs - does seem to be behind these results.

However, there are two caveats to this picture when looked at on a factory basis. First, comparing the Consul factories, it is the less modernised Consul II where feelings of being monitored are lowest and where work interest is highest. Secondly, work at the ultra-modern Brastemp-Rio Claro is hard and intense. Also, while work is not highly monitored, workers there do not register a significant feeling of greater work responsibility and work interest. Thirdly, the old Brastemp-São Bernardo factory fits a (converse) optimistic modernisation view as monitoring and work intensity perceptions are high and work interest is relatively low. However, feelings of responsibility are high and this is the factory which produces at a higher level of productivity and with lower absenteeism levels than its more advanced counterpart,

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when both Consuls and the Rio Claro factory are compared to the two traditional firms ( $Pr = 0.063$ ).

#### 5.4.2 Opinions about New Responsibilities, Tasks and Skills

Section 5.3 noted how workers in modernising firms were taking on specific new responsibilities such as quality checks, monitoring, demonstration, reporting, maintenance and co-ordination. That analysis also confirmed earlier observations that workers in more modernised firms had different and more complex tasks due to the integration of more sophisticated technologies and techniques at those factories. However, this section suggests that when the sample are asked how they feel about these specific new responsibilities/tasks, beyond a general level workers' attitudes are not affected in the ways that optimistic modernisation theory would suggest.

For example, as is evident from Table 5.16 (row 1) below, 89% of workers liked their new responsibilities and this was only slightly significantly greater for the skilled category ( $Pr = 0.095$ ). Moreover, the vast majority of workers felt that their new responsibilities were interesting things to do (89%; Table 5.16, row 2). However, the vast majority of workers (84%) did not find them easier. In this regard, the most significant result applied to the skilled. They registered the strongest view that responsibilities made work harder ( $Pr = 0.075$ ). These results suggest that workers generally embrace and like new and more complex responsibilities and that the higher the skill level the more likely a worker finds these new tasks not only more difficult but also more interesting.

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<sup>12</sup> Chapter 4, section 4.4

**Table 5.16: New Task and Skill Impressions, by sample and skill**

	Key Responses
Like new tasks?	Sample = 89% yes; especially skilled (Pr = 0.095)
New tasks are more interesting?	Sample = 89% yes
New tasks make work harder?	Sample = 84% yes; especially skilled (Pr = 0.075)
Want more skill?	Sample = 85% yes
Feel more skilled now?	Sample = 89% yes; especially skilled/semiskilled (Pr = 0.032)

**Source:** Worker interviews

There were also a number of important results in respect to the use of new technologies and techniques which either confirm or do not conflict with an optimistic view of modernisation. For example, a comparison of Tables 5.17 and 5.18 below suggests that overall positive responses to the effect of new techniques (71%) were higher than that for technologies (51%). Secondly, 51% of responses said the effect of technologies was to increase work velocity, 71% more responsibility, 20% more skill and 19% more interest (Table 5.17). In comparison, responses to the effect of new techniques were 33% more speed, 80% more responsibility, 9% more skill and 58% more interest (Table 5.18). Thus, the effect of technique use on attitudes was lower both on speed and skill effects but higher on interest, responsibility and overall satisfaction.

**Table 5.17: The Effect of New Technologies – Neutral or Positive Responses**

Effect of Technology Use	Key Responses
Overall effect positive?	Sample = 51% yes; highest yes = skilled/semiskilled (Pr = 0.001)
Increases work speed?	Sample = 51% yes; highest yes = semiskilled/unskilled (Pr = 0.015)
Increases work responsibility?	Sample = 71% yes; highest yes = skilled/semiskilled (Pr = 0.000)
Increases skills?	Sample = 20% yes; lowest yes = semiskilled/unskilled (Pr = 0.002); highest yes = comprehensive modernisers (Pr = 0.002)
Increases work interest?	Sample = 19% yes

**Source:** Worker interviews

**Table 5.18: The Effect of New Techniques – Neutral or Positive Responses**

Effect of Technique Use	Key Responses
Overall effect positive?	Sample = 71% yes
Increases work speed?	Sample = 33% yes; highest yes = two Brastemps (Pr = 0.063) and unskilled (Pr = 0.056)
Increases work responsibility?	Sample = 80% yes; highest yes = skilled/semiskilled (Pr = 0.062)
Increases skill level?	Sample = 9% yes
Increases work interest?	Sample = 58% yes; highest yes = skilled/semiskilled (Pr = 0.069)

**Source:** Worker interviews

More specifically, in terms of technologies (Table 5.17) what stands out is that the semiskilled responded much like the unskilled in terms of speed (high; Pr=0.015) and skill effects (low; Pr=0.002) but that they felt more responsible (Pr=0.000) and positive (Pr=0.001) about using the technology in much the same way as the skilled. Secondly, workers at the most modern firms were more likely to think that using the technology requires more skill (Pr=0.002). The first of these observations confirms greater work optimism and resilience on the part of the semiskilled. The second observation may, if these tasks are seen to be rewarded by the firm, confirm an optimistic modernisation hypothesis.

In terms of new production techniques (Table 5.18), workers at the two Brastemp factories (one old and one very modern) were more inclined to feel that their effect was to increase work speed than at the other firms (Pr=0.063). Secondly, the unskilled were more inclined to see techniques as having high speed (Pr = 0.056) but lower responsibility (Pr = 0.062) and interest (Pr = 0.069) effects than did the other two skill groups. The first of these observations may simply confirm a company wide (Brastemp) choice in the type of production technique used. The second observation may be partly explained by the greater simplicity of the jobs of the unskilled. Yet it also reflects, once again, the high levels of work enthusiasm of the semiskilled.

However, in contrast, other responses caution whether the sample's attitudes support an optimism scenario. For example, as shown below in Table 5.19 (row 1), Consul workers (93%) were most inclined to find their new tasks harder. This may reflect the greater level of work post mobility (i.e. filling in for others) at Consul, a characteristic which (as noted) workers do not particularly like.

In terms of Brastemp-Rio Claro, they find work overall harder (Table 5.15) but they do not find their new tasks as difficult as do workers at the other factories (Table 5.19, row 1). As most workplace changes there have existed since the firm's inception and during these workers' tenure, it is not surprising that tasks have not changed much. However, the intensity of their application, and maybe other work pressures, appear to have increased.

**Table 5.19: Impressions of New Tasks, contradictory responses by firm**

Task Indicator	Key Responses
New tasks are harder?	Highest (Consul, 93%); Lowest (Brastemp-Rio Claro, 77%)
New tasks are more interesting?	Lowest (Consul III, 60% vs 89% average)
Overall effect of technology use?	Most Negative (Consul III, 25% positive)
Overall effect of technique use?	Most Negative (Brastemp-Rio Claro, 50% vs 11% sample average, Pr = 0.056)
Feel more skilled now?	Least Positive (Consul III/Brastemp-Rio Claro, 77% vs 89% average, Pr = 0.073)

**Sources:** Worker interviews.

Secondly (Table 5.19, row 2), it appears that workers from Consul III were the least positive about their new responsibilities (fewer found them interesting; 60%). This result is of no statistical significance on the basis of the Consul III sample alone. However, combining this impression with what is known of workers'

preferences, the nature of conditions at Consul III and the greater work post mobility of workers at that factory again suggests that work satisfaction levels at Consul III do not fit an optimistic view of modernisation. This is confirmed when workers' attitudes to the use of new technology are compared (Table 5.19, row 3). Consul III workers again stand out as they had a relatively low positive response rate in their attitude to new technology use (25%).

Thirdly (Table 5.19, row 4), in terms of attitudes to the use of new techniques, 50% of Brastemp-Rio Claro workers responded negatively to the overall effect of new techniques while 89% of respondents at the other firms (including Brastemp-São Bernardo) said the effect was positive ( $Pr = 0.056$ ). These observations suggest that Brastemp-São Bernardo workers are unusually resilient to work pressures and positive about change. This result may also have a relation to the greater use or manner in which new techniques have been introduced at Brastemp-Rio Claro and/or that some other factor relating to the effort bargain (e.g. pay or evaluation) is causing dissatisfaction with work there. The earlier analysis of work preferences and attitudes (s5.2) suggested that evaluation systems might be behind these contrasting results at the two Brastemp factories. The different level of union influence at the two plants may also be an important factor behind these results.

In summary, as with attitudes to work overall, these results for new responsibilities and tasks contradict many of the presumptions of an optimistic modernisation hypothesis about workers' attitudes. The semiskilled seem quite positive. However, evidence suggesting that workers at the two most modernised factories have serious concerns over the nature of work and the implicit bargain at their workplaces is growing.

This view is supported by other responses. For example, the questionnaire also revealed that a large proportion (85%) of the sample want more skills (Table 5.16, row 2). Also, most (87%) felt more skilled now than when they started work at their firm (Table 5.16, row 2). The semiskilled/skilled ( $Pr=0.032$ ) were more inclined to believe this.

However, workers at the two most modernised firms were less inclined to feel they are now more skilled as a result of employment at their firm (77%; Table 5.19, row 5)<sup>13</sup>. Consul II workers were the most inclined to feel more skilled (100%) and this was closely followed by workers at the two most traditional firms. Consequently, when looked at in greater detail, even if a new implicit bargain is in operation it does not appear to be based on the attitudinal changes optimistic theory would suggest.

### 5.4.3 Perceptions of Progress and Opportunity

The final attitudinal indicators about work considered in this chapter concern workers' understanding of how, and on what basis, decisions about progress are made. Section 5.3 reviewed the nature of promotions in the firms. Yet when asked, 'have you been adequately compensated for your promotions' less than half (46%) of respondents said yes (Table 5.20, row 1).

Furthermore, as noted earlier, the vast majority of Brastemp-Rio Claro and Consul (particularly Consul III) groups were unhappy with evaluation systems while the majority of São Bernardo and Enxuta workers were more content. In contrast to the previous view that workers at the most modernised firms felt more stable, this suggests that workers' expectations (such as to a specific job or for a promotion) are being more adequately met at the two more traditional firms. As is shown below, these critical observations, combined with (more neutral) workers' impressions about how and on what basis opportunities are decided, provide deeper insights into workers' concerns about progress.

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<sup>13</sup> This is not explained by the skill structure of the sample as Brastemp-Rio Claro's and Consul III's skill structures fit in the middle of what is a fairly even the sample distribution by skill levels.

**Table 5.20: Impression of Basis of Decision Making, key responses**

Indicator	Key Responses
Adequate compensation for promotion?	Sample = 46% yes
Know what's needed for promotion?	Sample = 68% yes; highest yes = Consul (96% vs 58% average; Pr = 0.006); highest no = skilled (Pr = 0.016)
What's needed for promotion?	<ol style="list-style-type: none"> <li>1. Sample – 59% skills &amp; experience, 15% teamwork &amp; personal relations/ 26% education &amp; training.</li> <li>2. Skill / experiential emphasis: Brastemp-São Bernardo/Enxuta</li> <li>3. Qualification/relational emphasis: Brastemp-Rio Claro/Consul (Pr = 0.048)</li> </ol>
Basis of task allocation decisions?	Sample = 62% formal basis
Basis of task allocation decisions?	<ol style="list-style-type: none"> <li>1. Informal basis: Brastemp-São Bernardo /Enxuta (Pr = 0.039)</li> <li>2. Formal basis: Brastemp-Rio Claro/Consul</li> </ol>

**Source:** Worker interviews

For example, 68% of the sample felt they knew what was needed for promotion (Table 5.20, row 1). This was highest at Consul (96%) but considerably lower at all of the other firms (58% average; Pr = 0.006). Also, the skilled were much less likely than the semi/unskilled to know what was needed (Pr = 0.016). Information systems may be clearer at Consul and the lower response for the skilled may reflect the lack of career structure beyond their present skilled post.

What was seen as being required for promotion, on the other hand, fell into three groups of factors (Table 5.20, row 2). Over half (59%) emphasised 'demonstrated skills and experience', 15% said 'principally teamwork and personal relations' and 26% emphasised 'education and formal training'. However, as also noted in Table 5.20 (row 2), workers at the two most traditional firms were significantly more likely to believe that demonstrated work skills and experience were of overwhelming importance whereas respondents from the most modern firms and Consul II opted disproportionately for the formal qualification or relational explanation.

In terms of task allocation, workers held different views over whether decisions were made formally or informally. The majority of workers at all firms felt that decisions on these opportunities were made on a formal basis (62%; Table 5.20, row 3). However, it is also clear that significantly larger proportions of workers at the two most traditional firms felt that solely an informal system was used (Table 5.20, row 4).

Thirdly, when asked whether they felt their work at the firm had made them more mobile to other firms, 60% said yes (Table 5.21, row 1). This response was significantly higher for the semiskilled than either the skilled or unskilled. In view of the debate about the effect of ILMs on employability and work motivation, it is significant that the semiskilled continue to register higher optimism than the other groups. However, this inference does not appear to apply on a modernisation basis as this split of the sample was not significant and, as previous indicators have noted (Table 5.19), workers at the most modernised firms do not feel more skilled as a result of their work experience.

**Table 5.21: Perceptions of Improved Mobility, by firm and skill**

Indicator	Key Response by Firm	Key Response by Skill
More mobile now?	Yes (60%)	Semiskilled in particular (Pr = 0.081 )
More mobile due to..?	1] Experiential only emphasis – Brastemp-São Bernardo and Enxuta (Pr = 0.007)  2] Education/Training and experiential emphasis – Brastemp-Rio Claro and Consul II / III (Pr = 0.004)	1] Experiential only emphasis – semiskilled / unskilled (Pr = 0.096)  2] Education/Training and experiential emphasis – skilled (Pr = 0.081)

**Source:** Worker interviews

When mobility was improved, on the other hand, what was this due to (Table 5.21, row 2)? Similar to the above, a larger proportion of workers from the two modern firms and Consul II said ‘a combination of experience and education and training’ whereas a majority and larger proportion of workers at Brastemp-São

Bernardo and Enxuta said 'experience only' was responsible for this. Less predictably, it was the semiskilled and unskilled who felt that solely work experience was responsible and the skilled who felt that training and experience explained their enhanced external mobility.

In summary, even the relatively neutral indicators of perceptions of progress and opportunity reviewed in this subsection do not necessarily support an optimistic view of modernisation's effects on work attitudes. In fact, a more sceptical interpretation of modernisation is supported by combining workers' views about progress and opportunity decisions with a number of earlier observations. For instance, comprehensively modernised firm workers do not register greater perceptions of employability or skill. Yet when workers do feel more mobile this has a stronger relation to education and training at the more modern firms than at the two most traditional firms. However, as noted in Chapter 4, many of the courses offered to workers at the most modern firms are very firm orientated and are thus less likely to increase employability.

Secondly, while most workers are unhappy with their lack of promotion, workers at the most modernised firms are particularly unhappy with their (formal, task and promotional) evaluation system. In contrast, workers at the more traditional firms are happier with their (informal, task and promotional) evaluative systems. As these themes are also strongly linked to the worker-employer relation, Chapter 6 looks more closely at these issues through a consideration of workers' attitudes to the employer.

## **5.5 CONCLUSION - A NEW AND IMPLICIT EFFORT BARGAIN?**

This chapter's review of changes to work found some evidence to support the optimistic hypothesis, particularly in relation to 'objective' work developments and in terms of the semiskilled. There was also support, in principle, for the view that firms can encourage better performance outcomes by offering changes to work which do not

necessarily involve wages. Tradeoffs can be made and the implicit bargain represents a reasonable way to characterise modernising firms' responses to their desire for higher levels of quality and efficiency.

However, the implicit bargain offered by one firm (Brastemp-Rio Claro) seems to be a more acceptable one than that at the other comprehensively modernised firm, Consul III. Moreover, while the semiskilled are gaining tasks and displaying attitudes much like theory would suggest, the other two skill groups have concerns about their work and their prospects. Furthermore, results on a comprehensive/partial modernisation basis raise more fundamental concerns about the nature of modernisation and the implicit bargain of even the most modernised firm. A few examples demonstrate how, when the study moves further from 'objective' changes to attitudes, the optimistic hypothesis does not stand up to scrutiny.

First, the semiskilled and workers at the comprehensively modernised firms are using more complex, conceptual skills and work quite intensively with new technologies and techniques. They are also getting more training, education and the chance to further develop their skills within parts of the firm in which they are accustomed. Supervision has also improved most for these workers and they speak out more (at least on production issues) with a wide range of co-workers.

However, beyond these areas other 'objective' indicators contradict optimistic theory. For instance, Consul II workers have received more upgrading than those at most other firms. They also consider themselves to have a better supervisory situation than do their colleagues in Consul III. Brastemp-Rio Claro workers, on the other hand, want to make more suggestions but are less critical than others, whereas Consul III workers register the greatest desire (100%) to make more suggestions about issues which go beyond production efficiency. There are also question marks about the role of the firms' education and training policies, particularly as the unskilled are now more educated than the semiskilled but do not gain the types of opportunities that seem to be on offer to the semiskilled.

When attention turns to more subjective indicators the picture becomes even less like that provided by optimistic theory. Positive results included the semiskilled's high level of work interest despite it being more difficult, intense and responsible. Workers like to be challenged in their work. The semiskilled also felt they were now more skilled and that they had expanded employment opportunities due to their work in the firm. However, contrary to other studies on Brazilian workers, workers liked to use new techniques more than they did new technologies. Neither modernisation 'tool' was seen as having significant skill effects. Yet techniques registered higher for interest and responsibility effects.

More pessimistically, in terms of assessments of work overall, the indicators did not support the view that modernised firm workers are labouring smarter or happier. What they did suggest was that Consul II workers felt less monitored and more satisfied with their work than did workers at Consul III. In terms of Brastemp-Rio Claro, workers found their work hard and intense but low on responsibility and interest.

These results were compounded by workers' attitudes to their specific new tasks. For instance, Consul III workers were particularly unimpressed with their new tasks while Brastemp-Rio Claro workers were particularly negative about the pressures created by the new techniques they had to use. Workers at both of these comprehensively modernised firms were also quite sceptical about whether their new tasks had made them more skilled or employable. Finally, these same workers were unhappy with their evaluation systems. This provided a great contrast to the more optimistic views of workers at the partially modernised firms.

Overall, the evidence reviewed in this chapter seriously questions managerial intent. Even though two types of 'implicit bargain' appear to be evident, one (at Consul III) if not both of them are very fragile. They are also not based on the work attitudes that optimists suggest. The risk of becoming more dependent on workers' skills and attitudes has resulted in firms offering minimum changes to the distribution of power and little difference to labour's share in the benefits of modernisation. In terms of work, the modernised workplace seems to be acting as an even more powerful structure of

control than past forms of industrial organisation. Chapter 6 seeks to investigate whether this is also the case in respect to workers' attitudes to the employer and what effects this may have had on workers' attitudes to the union.

**PART C:**  
**MODERNISATION – THE INDUSTRIAL RELATIONS DIMENSION**

## CHAPTER 6:

### THE EFFECT OF MODERNISATION ON WORKERS' ATTACHMENT TO EMPLOYERS AND UNIONS

#### 6.1 INTRODUCTION

This is the first of two chapters dealing with the effects of modernisation on industrial relations. Chapter 7 analyses the responses of the case study unions to the 'modernisation' policies of the firms. The aim of this chapter is to cast light on the second attitudinal link within the optimistic modernisation hypothesis. That is, what effects has modernisation had on workers' attitudes to the firm and, by extension, on workers' attitudes to their union<sup>1</sup>?

Chapter 4 showed that two of the case study factories were comprehensively modernised and that they had achieved positive performance outcomes. However, Chapter 5 confirmed that, while many features of work had changed as theory argues these outcomes did not have the relation to workers' attitudes that optimists suggest. Thus if the optimistic hypothesis really holds it must be based on a new type of bond between the employee and the employer. Moreover, with 'us and them' attitudes removed, it is uncertain what effect this may have on workers' attitudes to the union.

On the basis of a review of workers' attitudes, this chapter argues as follows. First, in terms of the worker-employer relation, the concept of a new implicit bargain is again confirmed. Workers can be persuaded to think of the effort bargain in terms of a number of characteristics of employment. Workers (particularly the semiskilled) are also positive about this in principle and, consequently, those at the most modernised factories are taking a more inward looking firm-based approach. However, their degree of attachment to the firm is limited. Most workers are unhappy with their present gains

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<sup>1</sup> As in Chapter 5, no multivariate analysis was carried out due to the size of the sample and the depth of analysis in other parts of this thesis. However, chi-squared tests were carried out on key issues and the results of these (to a 5% significance level) are shown in the text. Disaggregations based on skill level did not hamper the analysis as the skill structure of the sample, by firm, was quite even. Where greater caution had to be shown over unclear causal relationships related to unionisation by firm.

while many have high hopes of future gains. Due to this uncertain situation, the probability that workers at the most modernised firms will voluntarily remain with their present firm is no greater than that for workers at the more traditional factories.

In terms of the worker-union relation, the cynicism of Brazilian workers to unions may have been heightened by the policies of the comprehensively modernised firm. The union's 'electorate' remains very sceptical and may even have shifted its priorities. However, this view is strongly qualified. For example, part of this result has been due to the anti-union policies of these firms rather than due to the persuasive effect of internal policies *per se*. Moreover, despite low levels of unionisation at the more modernised firms, many workers are positive about unionism and strikes. Yet this is conditional on union policies being directed towards the promotion of workers' key workplace concerns.

These results flow from the following empirical structure. First, based on responses to general questions, section 6.2 notes that workers are taking a more firm-centric view. The section then summarises the specific issues upon which the rest of the chapter's analysis is based. Secondly, section 6.3 casts light on the issue of company allegiance through the use of a number of questions about the employer and its policies.

Finally, section 6.4 looks at the other side of this allegiance debate. If workers have been persuaded to see the 'world of work' with eyes which more closely match employers, what relevance does unionism hold for them? A variety of questions about the union and unionism help the discussion move towards this composite view of the effect of modernisation on workers' attitudes. Section 6.5 summarises and concludes the analysis.

## 6.2 ANALYSING INDUSTRIAL RELATIONS ATTITUDES

### 6.2.1 Employer and Union Attachment – an overview of the sample

Chapter 2 suggested that many Brazilian workers have good historical reasons to question the intent behind employers' policies. The unrepresentative and political behaviour of most unions may have also deterred stronger links between workers and unions. Moreover, a number of earlier writers have emphasised the powerful influence of the Brazilian State on industrial relations and workers' perceptions and preferences.

Based on the samples' responses to a number of general questions, this subsection suggests that this situation may have changed. As modernisation theory suggests, the employer holds key significance in workers' eyes. Yet the state has little credibility and unions, as they are presently configured, continue to be seen as irrelevant by most workers. These results (and caveats to them) are discussed below.

First, 52% of the sample see the power to determine their livelihood resting more with the firm compared to 38% who indicated the state (Table 6.1, row 1). This result was significant on a modernisation basis, with workers at the three more modernised firms believing more strongly in the firm ( $Pr = 0.006$ ). However, while the semi/unskilled believed this, the skilled were strongly of the view that the state still held most influence.

**Table 6.1: Impressions of Power/Indications of Confidence, key responses**

Questions	Key Responses
Who has most power to determine your conditions of employment / living?	<ul style="list-style-type: none"> <li>a) Sample – 52% firm / 38% the state</li> <li>b) Comprehensive moderniser and Consul II workers – more emphasis on the firm (<math>Pr = 0.006</math>)</li> <li>c) Skilled was only group to see state as more significant (56%).</li> </ul>
In whom do you have most confidence to determine your conditions of employment / living?	<ul style="list-style-type: none"> <li>a) Sample – 78% firm, 16% other, 6% the state.</li> <li>b) Unionists: non-members and passive members more emphasis on the firm compared to active member emphasis on the union (<math>Pr = 0.004</math>).</li> </ul>

**Source:** Worker interviews.

Taking this issue further, all workers were asked a number of general questions about their employer<sup>2</sup>. These questions were – workers’ ranking of their firm on each of those work features noted in Chapter 5 (section 5.2.1) and, how their current firm rates on these issues compared to their previous firm<sup>3</sup>. Responses to these questions highlight a number of important aspects of employee attitudes.

For example, the highest rated characteristics of the current firm were ambience, stability, involvement and mobility and the most improved features of the present firm compared to past employment were ambience, training and salary/mobility (Table 6.2.). Within these results a number of themes stand out for the sample overall. First, ambience registers as an identifiable issue and a vast improvement on previous conditions. Secondly, that training and mobility stand out as improvements is also significant. However, none of these results by themselves prove or disprove the modernisation perspective.

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<sup>2</sup> As noted in Chapter 5, while following questions were not disclosed, there may be some correlation between how a worker rates the firm and conditions at previous employers.

<sup>3</sup> Composite indicators constructed by aggregating the number of first and second preferences (or top two improvement/problem scores) each indicator received, by group.

**Table 6.2: Rating and Comparing the Firm, hierarchies for features of employment**

FIRM (S)	N	Rating the Firm	Comparing the Firm
SAMPLE	93	Ambient Stability Involvement/mobility	Ambient Training Salary / mobility
COMPREHENSIVE MODERNISERS:			
1] Brastemp-Rio Claro	25	Ambient /stability Involvement Mobility/ salary	Ambient Training/mobility Salary
2] Consul III	6	Ambient Salary/training Stability/Involvement	Training/ambient Involvement Salary/mobility
PARTIAL MODERNISERS:			
1] Enxuta	20	Ambient/mobility Stability/involvement Training	Ambient Training Career
2] Brastemp-São Bernardo	25	Ambient Salary/mobility/ involvement Stability	Ambient Salary/training Stability/mobility/ involvement
3] Consul II	17	Salary Ambient/mobility Involvement	Salary/mobility Training/involvement Stability/ambient

**Source:** Worker interviews.

On the other hand, the implicit bargain of the comprehensively modernising firms is supported by certain disaggregated results. For example, when comparing past and present employers, salaries rated more highly at the two most modernised firms ( $Pr=0.082$ )<sup>4</sup>. This was also the case for workers' rating of their present firm in respect to salary ( $Pr = 0.006$ ). That salary rates as an improvement (but also a significant problem) highlights the low level of industrial wages in Brazil. Secondly, responses confirm that ambience ( $Pr = 0.092$ ), stability ( $Pr = 0.019$ ) and training ( $Pr = 0.006$ ) also received higher levels of approval at the most modern firms. Finally, mobility ( $Pr = 0.009$ ) and involvement ( $Pr = 0.027$ ) were also more improved at the comprehensively

<sup>4</sup> However, this result was even more significant when Consul II was added to the modern group ( $Pr=0.061$ ).

modernised firms, when past and present employers were compared.

Yet, as with general attitudes to work (section 5.2.1), these positive impressions of the modernising employer were not so categorical. For instance, that ambience registers as an identifiable issue and a vast improvement on previous conditions, but not a very important feature of work, suggests that there are limits to the means by which employer policies may affect attitudes. This is confirmed by the fact that, while involvement rates highly as a factory characteristic (and was more improved for workers at the most modernised firms) it was also of more minor importance to workers.

Moreover, Chapter 5 (s5.2.1) also noted that work mobility rated relatively lowly within workers' preferences and experiences. The significance of the above mentioned mobility improvement rating for their current employer may, therefore, relate more to promotion and career development and workers' expectations and demands for these rather than due to mobility per se - particularly without promotion. In this regard, uncertainty about career development 'promises' is a key issue within the employer-employee relationship that the literature and this thesis have already highlighted. Thus, it was highly significant that most workers were unhappy with their rewards on promotion and that workers at the most modern firms were by far the most unhappy with their systems of evaluation. This may also have dampened the degree to which workers in modernised firms feel increased stability at their current employer compared to past employers.

Other responses appear to confirm this presumption about feelings of stability. When comparing present and past employers the important stability variable does not fit the comprehensive/partial split. What the figures suggest is that almost all Brastemp-Rio Claro workers feel more secure in their job, that over half Enxuta, Brastemp-São Bernardo and Consul II workers also feel this way, but that most Consul III workers feel that their stability of employment has declined ( $Pr = 0.03$ ). As these workers come from Consul II, they are probably comparing the two factories.

In terms of workers' attitudes to unions, preliminary questions put to the sample indicate great scepticism (row 2, Table 6.1 above). For example, when asked whom they have more confidence in for the determination of their livelihood, the data suggests that the state is a much less credible institution than it may have been, that the firm inspires a great deal of trust but that the union was held up as a symbol by only a small minority of workers (up to 16%). A large 78% of the sample had most confidence in the firm and only 6% in the state.

These results were not significant on a modernisation basis or in terms of skill levels. Yet they were on the basis of unionisation (Table 6.1, row 2 b). Fairly expectedly, a much larger proportion of active unionists put more confidence in the union (nearly half) than did non and passive members (8%).

Nevertheless, due the distribution of unionists by firm (see Table 6.9), responses also suggest something about workers' attitudes on a factory basis. For example, non-members (i.e. most Brastemp-Rio Claro and Enxuta workers and about half of Consul, particularly Consul III workers) most strongly supported a firm centric view. On the other hand, active members (i.e. mainly Brastemp-São Bernardo and Consul, particularly Consul II, workers) were the least prepared to believe this ( $Pr=0.004$ ). Modernisation may explain part of these results.

In summary, these results suggest that the modernising firm has gained a greater level of attachment from workers. The results also suggest that unions are not very relevant to workers, outside of a small core of active unionists - most of who are not employed in the modernised firm anyway. Yet these observations require much deeper examination. The next subsection reiterates the specific themes which the rest of this chapter uses to explore the depth of workers' new attachment to the modernised employer and the basis of workers' guarded views of unionism.

### **6.2.2 Specific Themes for an Analysis of Industrial Relations Attitudes**

As discussed in Chapters 1 and 2, if a union actively tries to contest employer policies this sometimes acts to deter or modify negative consequences of modernisation

for workers. In some cases, Brazilian unions have helped workers gain wage premiums for new work or they have acted to deter some of the work and worker allocation policies that the employer was proposing. While resource constraints and internal workplace divisions could complicate union action, at workplaces where unions and/or factory committees were in operation workers were more prepared to speak out.

However, at a number of the case studies in this research these structures are not evident and unionisation is very low. Nevertheless, asking all sample members a series of questions which highlight why they are/are not union members and what they want/don't want the local union to do should help to expose both real and latent preferences for unionism. In terms of the employer, while labourers may be positive about modernisation in principle, studies suggest three areas of worker uncertainty. These related to worker dignity, the distribution of benefits from change and whether the employer's unitary 'message' could be believed? Beginning with the employer-worker relation, the next two sections explore these questions in depth.

### **6.3 THE MODERN EMPLOYER - THE NATURE OF WORKER ALLEGIANCE**

The first part of this section's analysis (6.3.1) of employees' attitudes confirms a presumption of this thesis that, while pay is important, it can be traded off by the employer for other conditions of employment. Yet, as noted in section 6.2, an improved ambience, higher levels of involvement and mobility (without promotion) may not be enough in themselves to do this.

Within this setting, the second subsection (6.3.2) explores workers' key concerns about the employer. Respondents were asked if and why their employer had more interest and what aspects of the employers' policies they are unhappy with. The analysis then turns more directly to the progress evaluation systems noted earlier. Looking more to the future, the final subsection (6.3.3) evaluates the sample's views of what they have gained, whether they will gain and how probable it is they will stay with their employer. These responses also highlight policies the firms may have to

modify (or issues unions must better address) if they wish to improve their performance.

### 6.3.1 The Question of Remuneration – Are the Tradeoffs Adequate?

All members of the sample were asked questions about remuneration and their feelings of overall reward. First, only 44% said that pay was adequate (Table 6.3, row 1). Yet in spite of their very low wages by industry standards, Brastemp-Rio Claro workers are by far the happiest with pay (Table 6.3, row 1, 1)). Consul II (47%), Consul III (33%), Enxuta (30%), and Brastemp-São Bernardo (40%) responses were much lower<sup>5</sup>. These differences in responses suggest that issues other than wages matter to workers. However, they also highlight how workers' previous experience affects the minimum acceptable wage and that wage levels in Brazil are strongly regionally determined. Relative union bargaining power is an important factor behind this.

**Table 6.3: Satisfaction with Pay and Overall, key responses**

Question	Key Responses
Are you adequately paid?	Sample = 44% yes 1) Highest positive response by firm – Brastemp-Rio Claro (60%) 2) Lowest positive response by skill – the unskilled (Pr = 0.038)
Your work is well compensated overall?	Sample = 60% yes 1) Highest positive response by firm – the two comprehensive modernisers (76%-83%; Pr = 0.056) 2) Lowest positive response by skill – the unskilled (Pr = 0.003)

**Source:** Worker interviews.

Considering responses on pay on an occupational basis (Table 6.3 row 1, 2) confirms previous divisions noted in the sample. Once again the semiskilled feel relatively adequately financially compensated (48%), to about the same degree as the skilled compared to the unskilled (Pr = 0.038). Less than a third of the unskilled thought that their pay was adequate.

<sup>5</sup> The proportion of Consul II workers who were satisfied with pay was higher than Consul III (47% vs. 33%). However, over half of Consul II respondents (53%) were still unhappy with pay.

Taking a broader view of compensation, workers were also asked - are they adequately compensated overall (Table 6.3, row 2)? A majority (60%) answered in the affirmative to this question and this endorsement was highest at the two comprehensively modernised plants (Table 6.3 row 2, 1)). Workers at Enxuta (40%) and Consul II (53%) responded the least positively to this question whereas Brastemp-São Bernardo workers were quite positive (60%).

These results are surprising, particularly in view of the positive response rate Consul II workers made to other attitudinal questions. On the other hand, the nature of the selection process for workers for Consul III and the role of the union at Brastemp-São Bernardo may have influenced these outcomes. Finally, the continuing superiority of the employment package for the skilled is shown by their positive response to this question (78%). However, the semiskilled also responded very highly (70%), making the distinction between these two groups and the unskilled the most significant (Table 6.3, row 2, 2)).

In summary, a number of points can be made about the implicit bargain based on these responses. First, while the semiskilled are quite content the unskilled feel unfairly treated by their employer both in terms of pay and other aspects of employment. Secondly, as far as factory management is concerned, Brastemp made a very wise choice moving to Rio Claro. However, career expectation concerns by all workers and evaluative concerns by workers at the comprehensive sites may require attention if firms such as Brastemp-Rio Claro are to continue with favourable turnover and productivity results.

In terms of Consul, workers at Consul II are most unhappy with non-wage issues. On the other hand, workers at Consul III rate pay very lowly. This is not surprising when it is remembered that the company has placed a group of highly motivated workers with high expectations in factory III. That less productive workers on the same job classification (but not performing the same tasks) in Consul II receive the same base wage as they do would not do much for factory III workers' assessment of pay.

In sharp contrast, the highly pressured Brastemp-São Bernardo workers feel quite satisfied with their overall employment package in spite of the disorganised state of the factory. Enxuta workers, on the other hand, are quite unhappy with both wages and with their overall employment package. This is not surprising in view of conditions there and the fact that wages lag behind other local metals firms.

### 6.3.2 Believing in the ‘New Employer’

While the most modernised firms have more successfully persuaded workers to go ‘beyond contract’, what does this suggest about workers' degree of belief in the ‘new employer’? First, asked if the firm has more interest in workers than in the past, 70% of the sample said yes, with this being highest at Brastemp-Rio Claro and Consul II (Table 6.4, row 1). However, once again, Consul III responses show no significant difference to the less modernised firms and this may be due to an intra-factory comparison (with Consul II scoring higher) on the part of Consul III workers.

**Table 6.4: Belief in the Firm’s Interest in Workers, key responses**

Question	Key Responses
Firm has more interest in workers now?	Sample = 70% yes 1. Highest positive response by firm – Brastemp-Rio Claro and Consul II (76%)
Why does the firm have more interest?... (profit or more altruistic emphasis)	Sample = 67% mainly due to profit 1. Greatest belief in altruism by firm – Brastemp-Rio Claro and Consul II (Pr = 0.029)

**Source:** Worker interviews

Furthermore, when asked why the firm has more interest, 67% of respondents said the reason had more to do with profit than could be assigned to altruism (Table 6.4, row 2). Significantly, a disproportionate number of Brastemp-Rio Claro and Consul II (not Consul III) workers felt that the reason was one predominantly driven by employer altruism (Table 6.4, row 2, 1)). Workers at the two oldest firms and the ultra modern Consul III were much more sceptical about their employer.

Responses to questions about the firms' reactions to workers' suggestions also confirm and contradict an optimistic scenario. A uniform percentage of workers (55%)

from all firms felt that the firm responded positively to any suggestion made (Table 6.5, row 1). However, Brastemp respondents (a modern and an old firm) scored lowest (56%) on the question of whether critical suggestions had negative effects on career prospects (Table 6.5, row 1, 1)). In contrast, Consul III and Enxuta (a modern and an old firm) scored highest (i.e. the most pessimistically; 77%) to this question (Table 6.5, row 1, 2)). On a skill basis, the semiskilled stood way ahead of the other two skill groups in their optimism that all suggestions they make will be positively treated and the unskilled were significantly more of the view that all suggestions are treated in a negative way (Table 6.5, row 1, 3) & 4)).

**Table 6.5: Firm’s Reactions to Suggestions and Workers’ Topics of Complaint, key responses**

Question	Key Responses
Firm’s reactions to workers’ suggestions?	<p>Sample = 55% positive</p> <ol style="list-style-type: none"> <li>1) Most optimistic workers by firm – Brastemp-Rio Claro and São Bernardo</li> <li>2) Most pessimistic workers by firm – Consul III and Enxuta</li> <li>3) Most optimistic workers by skill – the semiskilled (Pr = 0.028)</li> <li>4) Most pessimistic workers by skill – the unskilled (Pr = 0.015)</li> </ol>
What do you complain about?	<p>Sample = 58% salary/benefits; 23% skills/training; 9% evaluation; 79% ambience; 32% mobility/career</p> <ol style="list-style-type: none"> <li>1) On a firm level – <ol style="list-style-type: none"> <li>a) Few responses from Brastemp-Rio Claro.</li> <li>b) Comprehensive moderniser workers rarely complain about evaluation</li> <li>c) Consul III workers complain most about career opportunities and ambient</li> <li>d) Most other responses reflect situation at each firm and that more traditional firm workers are more vocal</li> </ol> </li> <li>2) On a skill level – <ol style="list-style-type: none"> <li>a) Semiskilled complain most about evaluation and least about skills and training</li> <li>b) Skilled complain most about skills and training and least about evaluation</li> </ol> </li> </ol>

**Source:** Worker interviews

Combining these results with earlier evidence on suggestions<sup>6</sup> suggests that, while Consul workers are uncertain about reactions to their suggestions, they are

prepared to speak out. Brastemp-Rio Claro workers may be happy overall with their conditions. Brastemp-São Bernardo workers, on the other hand, appear confident to make (and in the reaction to) their suggestions while Enxuta workers make critical suggestions in spite of anticipated negative effects on career prospects<sup>7</sup>. However, once again, the inference that the semiskilled are more optimistic and/or are being singled out due to their growing importance to company operations appears to be confirmed.

In an effort to pry further into what each group may feel most unhappy with within their employers' bargain, workers were also asked which of a list (the same as that used for the work preference ratings) of conditions did they complain about. Respondents listed these issues as follows - 58% salary and benefits/services, 23% skills and training, 9% evaluation concerns, 79% also about the ambience and 32% mobility and career issues (Table 6.5, row 2). However, response rates to this question varied considerably between firms.

For example, total Brastemp-Rio Claro responses to this question were very low (8) relative to their representation in the sample and responses at all other firms were well above their representation in the sample (Table 6.5, row 2, 1)). However, few responses from Brastemp-Rio Claro workers do not necessarily mean that workers there are happy with everything. In fact, while earlier sections noted that they are very unhappy with their firm's evaluation scheme it is striking that none felt prepared to more openly discuss this. The fact that the decentralised scheme used for evaluation is the same one which records a 'black mark' against a complaining employee may provide a more accurate view of why fewer workers complain at that workplace and not just that conditions are so idyllic.

Despite these very different response rates by firm, it is still instructive to consider what the more openly dissatisfied workers say they are prepared to complain about (Table 6.5, row 2, 1)). For example, workers at the ultra modern Consul III complain more than proportionately about the lack of career opportunities they feel they now have (4 respondents). Yet, as with Brastemp-Rio Claro workers, they are not

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<sup>6</sup> Chapter 5, subsection 5.3.2.

<sup>7</sup> As noted earlier, Enxuta workers appear less concerned with stability of employment, perhaps only

prepared to explicitly condemn the system of evaluation used for decision making beyond a general recognition that it is a problem. Other firm level responses to these questions either confirm the situation at each factory or, more importantly, that workers at the more traditional firms are more confident to speak out (Table 6.5, row 2, 1d).

On a skill basis (Table 6.5, row 2, 2)), the most skilled complain more than proportionately about skills and training (50%) and least about evaluation (0). The semiskilled, on the other hand, are complaining the least about skills and training (5%) and proportionately more about evaluation (21%). These contrary results for the semiskilled and skilled suggest that the skilled want new skills and that the semiskilled have high promotional expectations<sup>8</sup>. Consequently, firms' desires to elicit maximum allegiance from each of these groups of workers may require more than just the separation of these workers from each other within the factory.

Another method used to gauge the degree of worker belief in the modernised employer was through questions about whether workers were happy with how decisions were made and why (Table 6.6 below). These questions related to training/education, task allocation and the issue which appears crucial at the most modernised firms - promotional evaluation. Responses to these questions showed that involvement is liked for some issues but not for others and that this is affecting workers' views of their firm.

For example, earlier analysis suggested that workers at the most modern factories were more involved in training and education decisions and that work allocation decisions were more formal and known at these firms. In this regard, workers at Brastemp-Rio Claro and the two Consuls were most happy with the way these task (Pr=0.0008), training (Pr=0.025) and educational (Pr=0.0360) decisions were made (row 1, Table 6.6). This suggests that greater input may also make workers happier with their employer.

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because this has rarely been a feature of employment there.

<sup>8</sup> The unskilled's responses closely fit the sample distribution.

**Table 6.6: Satisfaction with Employer Decisions, key responses**

Question	Key Responses
Like way task/training/education decisions made?	1) Comprehensive moderniser and Consul II workers most happy.
Like the promotional evaluation system?	1) Workers from two most comprehensively modernised firms don't like (80% and above); partial moderniser workers do like (55%-60%) – (Pr = 0.012)
Why like/don't like promotional evaluation system?	1) Comprehensive moderniser workers who dislike – as is biased to education/training credits (Pr = 0.003) and/or too subjective. 2) Partial moderniser workers who don't like evaluation system – is due to subjectivity (Pr = 0.000)

**Source:** Worker interviews

On the other hand, confirming earlier analysis, most Brastemp-Rio Claro and Consul III respondents did not like their promotional evaluation systems (Table 6.6 row 2)<sup>9</sup>. In sharp contrast, the majority of Brastemp-São Bernardo (69%) and Enxuta workers (55%) were happy with their evaluation systems<sup>10</sup>. However, why do workers like or dislike the promotional system?

The major reason Brastemp-Rio Claro and Consul workers did not like their system was because it was seen as 'biased to formal education and training credits' (Table 6.6 row 3, 1)). Yet another reason modern firm workers did not like their evaluation system were because it was 'too subjective' (22% of their responses). Furthermore, while the majority of workers at the traditional firms liked their system<sup>11</sup>, of those who didn't (18) 89% criticised the system for its level of subjectivity (Table 6.6, row 3, 2)).

Overall, this subsection does not contradict a view that the most modernised firms have 'negotiated' a new implicit bargain with their workers, particularly the semiskilled. However, the degree of worker belief in the employer is limited and contingent on further change. For example, Consul III workers are not very convinced of their firm's interest in them, the reasons for this or of what may happen if they make

<sup>9</sup> The Consul system, while not a written plan like at Brastemp-Rio Claro, was a better understood (section 3.3) and clearer (re. training and participation based - Chapter 4) feature of Consul operations than were systems at the more traditional firms.

<sup>10</sup> Consul II workers were about equally divided on this issue.

critical comments. Secondly, while offering few explicit criticisms of the firm, Brastemp-Rio Claro workers appear to be constrained to openly voice their concerns with their firm's evaluation system.

Thirdly, in terms of the skill groups, there is an inherent conflict which may cause problems for the implicit bargain that firms are trying to make as they modernise. The skilled appear to be concerned that their relative position may be threatened. In comparison, the other skill groups are making it clear that they expect career development 'promises' to be honoured.

Finally, it appears that workers like a firm which offers decision making of a more participatory nature. However, they don't like the idea of formalised, participatory decision making being extended to promotional/evaluative issues. This appears to confirm a 'decentralised control' interpretation, rather than 'more open involvement' assessment of schemes such as Brastemp-Rio Claro's career system. However, many workers are still concerned about bias or favouritism in whichever system is used.

### **6.3.3 Gains, Expected Gains and the Probability of Staying and Leaving**

The analysis up to this point has suggested that workers are even less inclined to feel attached to their employer than to their work. Employer allegiance is far more limited than optimists suggest. Workers' assessment of what they have and may gain from being with their employer and their probability of staying or leaving provide additional evidence on this issue. This subsection considers these themes for the sample.

First, only 47% of the sample feel that they have gained significantly from their current situation and 53% said they have gained 'little to nothing' (Table 6.7, row 1, 1)). When asked what they expected to gain the largest proportion said 'much' (35%), 21% said 'little to nothing' and 44% were 'unsure' (Table 6.7, row 2, 1)). It is important to note that these issues do not show any significant difference across firms or by firm sub-groupings. On a skill level, however, most skilled workers have a high

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<sup>11</sup> They saw their system as fair and just in its rewarding of work skills and qualifications.

level of satisfaction with their employer (78%), a slight majority of the semiskilled feel they have made important gains (52%) but 72% of unskilled respondents were still awaiting a perceived, adequate level of reward (Table 6.7, row 1, 2)).

**Table 6.7: Impressions and Expectations of Gains, key responses**

Question	Key Responses
What have you gained from the firm?	1) Sample – 47% much, 53% little- nil 2) Skilled/semiskilled quite satisfied – unskilled very dissatisfied (Pr = 0.000)
What do you expect to gain from the firm?	1) Sample – 35% much, 21% little to nothing. 2) Skilled/semiskilled have high expectations – unskilled have low expectations (Pr = 0.040)

**Source:** Worker interviews

The semiskilled, nevertheless, registered a high level of optimism, similar to the skilled, that they would gain in the future (Table 6.7, row 2, 2)). These responses confirm that the semiskilled are more optimistic about gains in the future but also that there will be considerable pressure on modernised firms to deliver the expectations of their workforce. This may be fortified by Chapter 5's observations that workers at the most modernised firms are less certain if they are more skilled or more employable in the open labour market.

In view of these sceptical results about workers' expectations and prospects, do workers feel more prepared to stay at the most modern firms and what does this depend on? Do the semiskilled stand out in this regard? What is the probability of workers leaving voluntarily (within the next two years)?

First, confirming workers' desires for stability, 79% of workers expect (hope) to still be at their firm in two years time (Table 6.8, row 1). Secondly, most workers expect to be working in the same section but at a higher level (55%) and 33% expected to be working in a different section and at a higher level (Table 6.8, row 2). Workers at the two most modernised firms responded disproportionately more that they expected a promotion, particularly to another section (Table 6.8, row 2, 1)). Workers at the three partially modernised firms more strongly expected to stay in their present section (often without promotion in the case of Brastemp-São Bernardo; Table 6.8, row 2, 2)). Thus

workers at the most modernised firms do have higher internal mobility expectations, particularly when it comes to the issue of promotion.

This attitude may allow the employer to allocate labour more flexibly. Yet as noted in Chapter 5 (Table 5.14), this is the opposite of what is occurring at these factories. Workers at the most modernised firms are more likely to remain in the same section on promotion. If workers at the most modernised firms are happier with this then it would appear that they prefer a more literal form of stability rather than one involving too much movement between sections of the firm's operations. On the other hand, if they are unhappy with this situation, the modernised employer may need to provide greater mobility (plus stability and promotion) in order to generate greater feelings of employer attachment.

**Table 6.8: Expectations of Stability or Voluntary Turnover, key responses**

Question	Key Responses
Expect to be at firm in 2 years?	1) Sample – 79% yes
Expect to be working where?	Sample = 55% same section/higher level; 33% different section/higher level. 1) Comprehensive modernised firm workers – a promotion, particularly to another section (Pr = 0.043). 2) Partial moderniser workers – same section, often without promotion
Probability of this (voluntary) stability depends on...?	Sample = 84% conditions at firm; 27% outside opportunities also. 1) Comprehensive moderniser workers – greatest emphasis on developments at current firm 2) Partial moderniser workers – less emphasis on developments at current firm (Pr = 0.082)
Expect to (voluntarily) leave firm in next 2 years?	1) Sample – 28% have reasonable probability of leaving. 2) Non-unionists (Enxuta, Brastemp-Rio Claro and 50% of Consul III workers) most likely to leave (Pr = 0.004)

**Source:** Worker interviews

Thirdly, the probability of staying at the firm (Table 6.8, row 3) was strongly related to (improved) conditions at that workplace (84% of respondents) as opposed to the lure of work at other firms (27% of respondents also suggested this reason). At Brastemp-Rio Claro and Consul III this inward-looking perspective was highest, with

93% of respondents saying a decision to stay or move was based on developments at the current firm (Table 6.8, row 3, 1)). Responses from workers at the other three factories were significantly less internally directed (Table 6.8, row 3, 2)). This is the type of response modernising employers would like to hear.

However, looking at this issue from another angle, 28% of the sample expected to leave the firm in the next two years (Table 6.8, row 4). This did not vary by firm and what might worry modernising firms is that non-unionists were much more likely to feel that they would not be working there in two years (Table 6.8, row 4, 2)). This is surprising as the non-unionist group falls in the middle of the skill distribution of the sample and applies more to the two most modernised firms and Enxuta. It thus appears that workers at the most modernised firms do not have any greater (possibly less) attachment to their employer than do workers at the partially modernised firms.

In summary, this subsection has suggested that the implicit bargain at the most modern firms has made workers there more company directed in perspective. It may also confirm the firm specific and less transferable focus of their new skills within these firms' ILMs. However, while modern firm workers and the semiskilled have high levels of work interest and hopes of a lot more from their employer, their expectations of progress and degree of company allegiance appear low and no greater than that expressed by workers at the older industrial establishments. The next section examines how this situation translates into workers' attitudes to the union.

#### **6.4 UNIONS AS A 'VOICE' - WORKERS' VIEWS AND EXPECTATIONS**

Unionisation is higher at the two older refrigeration factories (Table 6.9 below). This is not surprising as previous parts of this thesis suggested that the more modernised firms have the means (Brastemp-Rio Claro) and the clear intent (Consul III) to exclude unionists from their operations. However, the opinions of workers at all of the sites can be used to test the links between modernisation, subjectivity and unionism. To achieve this, this section's analysis of workers' attachment to their union is approached through questions which give insights into why workers do (or don't)

belong to a union (6.4.2) and in what workers want (and don't want) unions to become involved (6.4.3)<sup>12</sup>.

By way of background, the first subsection (6.4.1) gives a brief summary of the key unionisation characteristics of the sample. This also provides a clearer idea of the attitudes of the firms to unionism and to the local unions. Overall, this analysis suggests that, despite the anti-active unionism policies of all firms, workers' negative views of unionism could be partially offset if unions had more effective policies for dealing with negative aspects of workplace modernisation.

### 6.4.1 A Profile of Unionisation

Within the sample 47% of workers are union members and 53% are not (Table 6.9). Also, only a minority of unionists (15%) is active beyond the use of union services<sup>13</sup>. However, there are a number of other aspects of the sample's union distribution which stand out.

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<sup>12</sup> There is a sizeable body of literature dealing with the nature of worker attachment (i.e. commitment, allegiance etc) to firms and unions. Such studies (e.g. D. Guest and P. Dewe, 'Company or Trade Union: Which wins worker allegiance?' British Journal of Industrial Relation, (1991), 29,1; D. Guest and P. Dewe, 'Why do workers belong to a trade union?' British Journal of Industrial Relations, (1988), 26,2) often use econometric and factor analysis and these sometimes include questions about reasons for joining a union. These are important methods for analysing worker 'attachment'. However, the depth and breadth of analysis involved in other parts of this work does not permit such an approach within this thesis.

<sup>13</sup> The terms active and passive were largely worker defined. Passive represents using the social services of the union but not viewing the union as more than this nor participation in political activity. Active, on the other hand, includes the latter functions for members and their union. However, at Consul active membership often represented a desire rather than a reality.

**Table 6.9: The Nature of Unionism, by sample, skill and firm**

Union Type	Non Member	Passive Member	Active Member
Sample:	53%	32%	15%
By Skill:			
Skilled	52%	39%	9%
Semiskilled	41%	44%	15%
Unskilled	60%	21%	19%
By Firm:			
Rio Claro	84%	16%	-
Enxuta	70%	30%	-
São Bernardo	12%	56%	32%
Consul II	47%	23%	30%
Consul III	50%	33%	17%
Consul Total	48%	26%	26%

**Source:** Interview data – Appendix D, Table D1.

First, the semiskilled are the most unionised and the only skill group where a majority (59%) are union members (Table 6.9, row 2). This seems at odds with a pessimistic interpretation of unions and modernisation when it is remembered that the semiskilled are being singled out for better treatment. Yet it is here that a distinction between passive and active membership may explain this apparent contradiction. The semiskilled (44%), closely followed by the skilled (39%), are predominantly passive members. Thus it is not membership but passive involvement (i.e. for union social services) as opposed to active unionism (i.e. more political unionism) that divides the sample and company opinion.

Firms may even see passive union membership as a more positive indicator of interest and self-motivation. In this regard, the less optimistic situation of the unskilled may be partly explained by their unionisation level. The unskilled (Table 6.9, row 2) are most likely to be both non-members (60%) and active members (19%).

Secondly, the suggestion that modernising firms are not opening up factory relations to unions is confirmed (Table 6.9, row 3;  $Pr = 0.003$  when the sample is divided on an partial/comprehensive basis). The Brastemp-São Bernardo union, not surprisingly, tops the sample for all types of unionisation. However, while unionisation is also high at both Consul factories (50%-53%), there is a large distinction between

active membership in Consul II and the ultra-modern Consul III (30% vs 17%; Table 6.9, row 3)

On the one hand, this may confirm that passive unionisation is a proxy for workers' interest in development - thus employment - in factory III. On the other hand, it might also confirm suggestions that, despite *Sinditherme's* (the moderate union) high level of unionisation, the company feels there is some validity to the *Mecânico's* (the militant union) claim that many Consul workers would prefer a more militant union. Whichever reasons apply, passive and active membership appears to be the line which divides labour mobility between Consul II and III.

Other statistics of importance to a consideration of unionisation are that unionists are older (33 years vs. 28) and have longer periods of service (6.5 years vs. 4) than non-members<sup>14</sup>. Unions may be a less attractive affiliation for the bulk of young people joining the labour market. These points have particular relevance as the comprehensively modernising firms have been shown to prefer to employ young, inexperienced workers. These factories' more intense screening techniques and educational entrance barriers may be another method for achieving a young, less actively unionised workforce.

Finally, a number of important inferences can be made from the previous analysis of the data set. Active unionists (mainly Brastemp-São Bernardo and Consul, particularly Consul II workers) appear just as interested in their work, they felt they had gained many new skills and had been just as active in seeking out work skill and career improvement opportunities as workers not active in union affairs (basically workers at the more modernised factories and Enxuta)<sup>15</sup>. Active unionists also had strong desires for stability of tenure and greater involvement at work<sup>16</sup>. However, they were uncertain about key, informal processes at their workplace<sup>17</sup>. Nevertheless, it is very relevant to the modernisation focus of this thesis that their (low) expectations of future gains and probability of leaving their firm were not statistically different to the views of workers

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<sup>14</sup> Appendix D, Table D1, columns 5,6.

<sup>15</sup> Chapter 5, sections 5.2 and 5.3.

<sup>16</sup> Chapter 5, section 5.2.

<sup>17</sup> This chapter, section 6.3.2.

at the most modernised firms and Enxuta<sup>18</sup>.

#### 6.4.2 Why do Workers belong to a Union?

This subsection builds on the above observations by exploring workers' revealed preferences for belonging to a union. Responses generally confirm the union categories, as defined, and the division of unionisation by firm. However, the following observations also help to show those areas in which unions may have to improve or better explain their policies if they wish to be more successful and representative.

First, there was a strong level of awareness by the sample that the union had policies (80%; Table 6.10, row 1). Specific responses are important in this respect. For example, the more modern a firm the less aware are workers that the union has policies (Table 6.10, row 1, 2)). On a skill basis, the unskilled (the most non-unionised and actively unionised) are most likely to believe the union has a policy agenda (Table 6.10, row 1, 3)). However, the unskilled have shown the greatest reluctance to align themselves with a union (Table 6.9, row 2) whose policies they are quite aware.

**Table 6.10: Awareness of Union Policy and Overall Assessment of the Union, key responses**

Question	Key Responses
Are you aware of your local unions' policies?	<ol style="list-style-type: none"> <li>1) Sample – 80% yes</li> <li>2) By firm – the more modernised the least aware (Pr = 0.001)</li> <li>3) By skill – unskilled the most aware</li> </ol>
Is the local union good?	<ol style="list-style-type: none"> <li>1) Sample – 71% not good</li> <li>2) Comprehensive modernisers – the most negative (Pr = 0.000)</li> <li>3) Consul II response (50/50) much different to Consul III (100% no).</li> </ol>

**Source:** Worker interviews

Secondly, a significant 71% felt that the union was not a good organisation (Table 6.10, row 2, 1)). The more modern a firm the more likely are workers to think this way (Table 6.10, row 2, 2)). Nearly 100% of workers at the two most modern firms felt such, while only just over 50% of Brastemp-São Bernardo and Consul II workers

<sup>18</sup> Section 6.3.3.

agreed with this. Most (80%) workers at Enxuta were also critical of the union.

These results suggest that modernising companies have had some success in gaining greater worker attachment and/or that these firms are creating the conditions whereby unionism is less relevant. However, in terms of Consul, it may merely confirm the selection criteria for movement from Consul II to Consul III and that a larger proportion of workers in Consul II look to the *Mecânicos* as their model union referent. Similarly, the response of workers at Consul III may be a criticism of *Sinditherme's* moderate approach. In contrast, workers at both the modern Brastemp-Rio Claro and the more traditional Enxuta factory are not at all happy with their (militant) unions. More broadly, these results beg the question – what do workers want of a union if they have such negative impressions of a number of different types of unionism?

Accordingly, when asked whether their union's policies were good (Table 6.11, row 1) this question elicited a slightly different set of responses to the previous question on whether the union was good. For instance, 62% of respondents said that some of the union's policies were good compared to 21% who said none and 17% who said all policies were good (Table 6.11, row 1, 1)). However, once again, the more modern a firm the less positively do workers see union policy (Table 6.11, row 1, 2)). Active members were most likely to be totally positive about union policy, non-members the most categorically negative and passive members were by far the most likely to believe that only some of their union's policies were good (87%; Table 6.11, row 1, 3)). This last observation is probably explained by passive member's service demands of the union.

**Table 6.11: Impressions and Awareness of Union Policies, key responses**

Question	Key Responses
Local unions' policies are good?	<ol style="list-style-type: none"> <li>1) Sample – 62% some are good; 21% none are; 17% all are good</li> <li>2) The more modernised a firm the least positive are workers (Pr = 0.003)</li> <li>3) Passive Unionists more likely to like some of unions policies (Pr = 0.000)</li> </ol>
Local unions' policies are...?	<ol style="list-style-type: none"> <li>1) Sample – 30% nothing; 19% workplace/labour process; 51% traditional issues.</li> <li>2) Passive unionists – most aware of unions traditional orientation (Pr = 0.000)</li> <li>3) Most skilled – most likely to feel union does not have policies</li> <li>4) By Firm: <ol style="list-style-type: none"> <li>a) Workers from two comprehensive modernised – most likely to feel union does not have policies</li> <li>b) Brastemp workers most aware of unions workplace/labour process orientation – Consul workers most aware of unions traditional orientation (Pr = 0.000)</li> </ol> </li> </ol>

**Source:** Worker interviews

What then do workers think the union's policies are (Table 6.11, row 2)<sup>19</sup>? Almost 30% of respondents (91) to this question believed that the union does not have any real policies and only 19% felt that the union was concerned with workplace themes (Table 6.11, row 2, 1)). About 51% felt that the union was solely concerned with traditional issues not connected to the shop floor. On a firm basis, workers at the two more modernised plants most strongly felt that the union does not represent anything (Table 6.11, row 2, 4a).

On a skill level, it is the skilled workers who stand out from the rest (Table 6.11, row 2, 3)). They are most likely to feel the union does nothing and thus least inclined to say the union has either type of strategic orientation. On a unionisation basis, once again passive unionists are most aware of their union's traditional (service) orientation (Table 6.11, row 2, 2)). The problems these differences in attitudes (by the various groups) raise for union policy are further underlined by these observations.

<sup>19</sup> A list of possible policies was used to gain workers' responses. Traditional refers to wages, stability regulations and services.

However, the split of the sample by firm for these two types of union orientation (traditional vs. workplace based) is the most illustrative result to emerge. At the Brastemp factories (a partial and a new plant) workers are most aware of union workplace strategies while at Consul (a partial and a new factory) workers are most aware of a traditional orientation of their union (Table 6.11, row 2, 4b). However, as noted above, Consul III workers were particularly unhappy with their union whereas this was less so for Consul II workers. This may support the contention that Consul III workers are very unhappy with *Sinditherme's* (lack of a) workplace approach and that the *Mecânicos* are still an important symbol for many workers at Consul II.

Combining the above responses - in respect to policy awareness, rating the union and its policies and the nature of union policy - confirms that the various skill groups have quite different impressions and demands of their union. This suggests that there are strong reasons for unions to develop specific policies for each skill group in addition to their general policy principles. These results also suggest that unions must continue with their service provision function. On a firm level, workers' responses (at Consul) may offer some hope for the future of militant (but strategic) unionism. However, if unionisation is the sole measure of union effectiveness, it must be remembered that the militant Brastemp-Rio Claro (Limeira) union has not been very successful at that plant (16% unionisation; Table 6.9).

Finally, a cross check of these observations - about attitudes to the union and on the need for unions to have a workplace/labour process agenda - was carried out by cross tabulating responses on workers' rating of the union with their views on the nature of union policies (Table 6.12 below). Despite the negative impression of unions overall, these results confirm the importance of a union's workplace/labour process policies for workers. Workers expect their affiliation with a union to be rewarded by active union involvement in workplace/labour process issues.

**Table 6.12: Impressions of the Union based on its Policy Approach, key responses**

Combined questions	Key Responses
Local unions' policies are / union is good?	1) Sample – union is more likely to be judged as good if it is seen as having workplace/labour process policies (Pr = 0.000)
Local unions' policies are / unions policies are good?	1) Sample – union seen to have labour process policies is more likely have its policies liked uncategorically (Pr = 0.000)

**Source:** Cross tabulated from responses noted in Tables 6.10 and 6.11.

For example, a positive view of the union was most evident for those workers who felt that the union had workplace/labour process policies (Table 6.12, row 1). A negative view of the union was more likely if a worker felt that the union did nothing or only concerned itself with traditional issues. Secondly, if a worker felt that union policies did not go beyond traditional issues, almost all respondents said that only some of the union's policies were good (Table 6.12, row 2). On the other hand, of the smaller number of workers who were aware of the union's labour process interests, more than half were happy with all of the union's policies. The rest were happy with some of those policies.

### 6.4.3 What Workers want and don't want of a Union

What then do workers (particularly at the most modern firms) think the union should do? There is obviously more that unions could do as only 12% said 'nothing', while 65% said workplace initiatives and 23% noted the need for union action on traditional issues (Table 6.13, row 1, 1)). On a firm basis, Brastemp-Rio Claro stood out as the only plant where a significant number of workers said 'nothing' (Table 6.13, row 1, 2)). Workers there also registered the lowest desire for their union to become involved in workplace issues.

**Table 6.13: Policy Expectations of the Union, key responses**

Question	Key Responses
What policies should the union have?	1) Sample – 65% workplace/labour process issues; 23% traditional issues; 12% ‘nothing’ 2) By Firm: a) Brastemp-Rio Claro – significant number said ‘nothing’ (33%; Pr = 0.012) b) Consul III – 100% said workplace/labour process issues. c) Consul II – 70% workplace/ labour process, 30% traditional.

**Source:** Worker interviews

In comparison, future union policies on the labour process were of paramount concern (100%) to Consul III workers, with none of them saying ‘nothing’ or traditional themes (Table 6.13, row 1, 2b)). Combining these and previous results on attitudes to the union confirms that Consul III workers are unhappy with the union (and maybe thus less unionised) because it does not do enough for workers in the factory. On the other hand, many Brastemp-Rio Claro workers believe their union does not have any relevance for workers in their particular situation.

In contrast to workers at Consul III, Consul II workers registered a strong desire for their union to become involved in traditional areas (Table 6.13, row 1, 2c)). However, they also registered a strong desire for future union initiatives on their labour process concerns, equal to that noted by workers at the older establishments. These responses for Consul II suggest that both salaries and the work environment are important unfulfilled demands they have of their union.

Comparing workers' hopes for future union policy with workers' awareness of union policy provides further evidence of latent demand for union labour process initiatives (Table 6.14 below). First, 48% of respondents felt that the union should be, but was not as yet, involved in labour process issues (Table 6.14, row 2, column 2). This contrasts with only 6% of respondents who had unfulfilled traditional expectations of the union (Table 6.14, row 1, column 3). There are thus many reasons to support the view that many workers would like their union to challenge managerial ‘prerogative’ to adjust workplace conditions.

**Table 6.14: Impressions of what Union's Policies are/should be**

Question/Response	Union policies should be based on the workplace.	Union should have traditional policies only.
Union policies are focussed on the workplace.	17.5 % of respondents	6% of respondents
Unions policies are focussed on traditional issues.	48% of respondents	16.5% of respondents

**Source:** Cross tabulated from responses noted in Tables 6.11 & 6.13.

However, there appear to be strong limits to the degree to which workers feel unions should take on a challenging identity. Union allegiance is also a very contingent and limited phenomena. The historical legacy of either radical, non-representative unionism or moderate, non-representative union corporatism appear to have left their mark on workers' attitudes to strikes, so-called political unionism and vertical union structures. While the emergence of the CUT and the Workers' Party (PT) have challenged this view since 1980, responses to questions on these themes suggest that workers' views have not changed to the degree many commentators expected or desired.

For example, only 37% of interviewees felt that their union had an inclination to strike (Table 6.15, row 1). The spread of these responses between firms was very large with nearly all (92%) of Brastemp-São Bernardo workers saying yes compared to only 9% of Consul respondents (Table 6.15, row 1, 1)). One quarter of Brastemp-Rio Claro respondents recognised a strike inclination as did 15% of Enxuta workers. Union members and the semiskilled were more aware of their unions inclination to strike than non-members and the other two skill groups (Table 6.15, row 1, 2)).

**Table 6.15: Assessing the Union on Strike Action, key responses**

Questions	Key Responses
Union has an inclination to strike?	Sample = 37% yes 1) Brastemp-São Bernardo highest yes (92%) – Consul lowest (9%); by firm – (Pr = 0.000) 2) Unionists (Pr = 0.000) and the semiskilled (Pr = 0.050) highest yes responses.
When should a union consider striking?	1) Sample – 45% never, 31% over wages, 24% over any issue in dispute. 2) Two most traditional firms workers – most unrestricted (Pr = 0.019) 3) Workers from comprehensively modernised Consul III evenly divided on three views and more strike positive than Consul II workers (65% said never) 4) Active unionists more militant than passive/non-unionists (Pr = 0.000) but still split between the no strike (33%) and unlimited strike option (67%)
Union is good / when should strike?	1) Sample – 37% union not good/should consider strike action.

**Source:** Worker interviews and derived from responses in this table and Table 6.10.

Yet opinions on whether unions should strike varied significantly (Table 6.15, row 2). For example, the largest part (45%) of the sample felt that strikes should never be used, 31% that strikes should be restricted to the issue of wages and 24% felt that strikes should be employed for any issue in dispute (Table 6.15, row 2, 1)). Overall, workers at the two older firms were most unrestricted in their preference for the use of a strike (Table 6.15, row 2, 2-3)).

However, Enxuta workers displayed the most even split between a preference for no strikes and the unrestricted use of a strike. In contrast, Consul III workers were completely evenly divided between the three preferences and were more strike positive than workers at Consul II. While these results may confirm a less militant attitude by workers at the modernised plants in general, Consul III workers do not seem to be as passive as the firm may be assuming. Yet they have no real avenue to express their preferences for union (or employer) policy on this or other matters.

Active members were unsurprisingly the most militant and passive members were just as non-militant as non-members (Table 6.15, row 2, 4)). However, over a third of active members were still against the use of a strike in any circumstance

whereas none saw any logic to restricting strikes to solely wage issues. This suggests that even among active unionists a large spread of attitudes exists in relation to the appropriate form of resistance and its timing.

Nevertheless, the fact that 55% of the sample were in favour of some strike use (Table 6.15, row 2, 1)) whereas only 47% were union members (Table 6.9) suggests that unions could successfully employ the strike option if used more strategically. This is confirmed by tests comparing questions about strike use and workers' rating of the union. A significant 37% of the sample thought that their union was both not good and that some or unlimited strike action should be a real option (Table 6.15, row 3).

Turning to the issues of political unionism and vertical union relations, the results of this study provide little comfort for those groups with ambitions to build unions with both broad agendas and large vertical structures. For example, a significant proportion (52%) of respondents to the earlier union policy question also said that the union had policies 'other' than those listed (Table 6.16, row 1, 1)). The skilled and non-members showed statistically significant higher response rates to these questions than others (Table 6.16, row 1, 3-4) respectively). What 'other' meant was overwhelmingly couched in negative terms, the two main responses being 'themselves' and 'politics'.

**Table 6.16: Alternative and Political Impressions of Unions, key responses**

Questions	Key Responses
Union policies are (other than listed)?	1) Sample – 52% yes 2) 'Other' – always negative; Brastemp Rio Claro (16%), Consul III (100%). 3) By skill – significant response by skilled (Pr = 0.054) 4) Non-unionists – significant response (Pr = 0.091)
Do you support a union central/political party?	None; 9 supporters of CUT were all male, Brastemp-São Bernardo workers and for 9 the party was the PT (Workers' Party)

Source: Worker interviews

The split of these comments by firm shows another important result (Table 6.16, row 1, 2)). Very few Brastemp-Rio Claro workers said the union had policies other than those listed but all Consul III respondents criticised their union for being more preoccupied with itself than with workers' needs. If (as seems probable) this

assessment relates to *Sinditherme*, this confirms the growing picture of *Sinditherme* as too moderate and as an unrepresentative body in Consul workers' eyes. However, the Limeira (Brastemp-Rio Claro) union's lack of focus on key policy issues does not seem to be the principal reason why workers there are not positive about the union.

Other questions on these themes elicited such low response rates (11%) that tests of significance show no differences within the sample (Table 6.16, row 2). Yet 9 of the 11 workers who indicated they supported a peak union body (always the CUT) were from Brastemp-São Bernardo, all were male and 8 were active trade unionists. Only 2 of the 11 were from the ranks of the semiskilled. This same pattern was replicated for a question on whether workers supported a political party (Table 6.16, row 2). In this case the PT was the party mentioned by all but one of this small group (10) of workers. These results suggest that a broader view of unionism and its political links has not spread very widely, even in key bastions of 'new unionism' such as in São Bernardo.

## **6.5 CONCLUSION: WORKER SUBJECTIVITY - THE IMPLICIT BARGAIN AND THE 'SHIFTING ELECTORATE'**

This chapter has cast serious and consistent doubt on whether the new effort bargain has any relation to concepts such as 'company allegiance'. The semiskilled are very positive about their situation. They are clearly more pivotal to company outcomes. Moreover, workers at the comprehensively modernised factories take a more firm-centred view. However, most workers appear to have a very sober impression of what the firm is offering and why. Within the context of 'Brazilian' modernisation, consenting would appear to be the most optimistic way to describe worker behaviour. Employer policy could best be described as a more subtly controlling.

Traditional anti-unionism and new forms of 'persuasion' have acted to keep unions on the margin of industrial relations and workers' consciousness. Yet, outside of the most significant examples of modernisation (e.g. Brastemp-Rio Claro), it would appear that unions still stand some chance of gaining workers' 'hearts and minds' if

they were to find some way to promote effective responses to the workplace policies of modernising firms. The following paragraphs summarise key aspects of this chapter's findings on these two areas.

For example, despite feeling that the training, education and participation opportunities they have been given are important, workers at the most modernised factories stood out as they don't like the way promotions are decided. In contrast, the majority of respondents from the less modernised firms did like their systems of evaluation. Nevertheless, workers at all factories are both unhappy with their promotions and concerned that bias and favouritism may be at work, whether or not their employer uses an informal or training credit-based system for evaluative purposes.

Secondly, many workers felt their employer has more interest in them than in the past and should give them more promotions or better conditions. However, workers at the comprehensive modernisers did not register a greater expectation of continuity at their firm than did workers at the older factories. Moreover, most workers said they had gained little as yet from their employment and, in contrast to Brastemp-Rio Claro responses, Consul III workers were just as sceptical of their employer's reasons and intentions as were workers at the more traditional firms.

In summary, those responsible for re-establishing Brastemp in Rio Claro made a very smart move. However, there are strong, latent expectational pressures on the company to deliver its implicit promises, particularly to semi/unskilled workers. At Consul, on the other hand, productivity is high yet there are clear indications that workers are negative about the company. Consul II workers are particularly unhappy about non-wage issues and Consul III workers are disgruntled about both wage equity and non-wage themes.

Nevertheless, these same workers (especially those at Brastemp-Rio Claro) were not inclined to speak out about such issues. In comparison, Brastemp-São Bernardo workers' attitudes were more open and cynical. They may feel very hard pressed but they are happier and more confident to openly criticise the employer on any issue. Enxuta workers, on the other hand, are both unhappy with conditions and very

pessimistic that this can or will change.

An important reason for this variance in worker attitudes between factories is the different level and type of unionism which exists at each location. Chapter 7 will look in detail at this issue. However, this chapter has provided important background for this analysis. It has confirmed that employers' implicit bargain within the 'politics of modernisation' is neither fixed, static nor based on psychological bonds such as allegiance. 'Us and them' attitudes appear to remain, if only because the bargain is seen as being unfair. This implies that unions may have some chance of building and solidifying their 'electorates', if they can adjust their strategies.

However, this will be very difficult within the Brazilian context. This is because unions have to contend with two types anti-union policy from employers. On the one side, employers have subtly tried to weaken workers' desire for collective, outside representation by offering new benefits. In addition, they have located or used policies such as screening techniques and age and educational criteria to greatly reduce the chance that workers with strongly alternative views can gain access to employment within the factory. The fact that the industrial relations framework remains ambiguous may not have helped these unions either.

Nevertheless, despite this difficult context the degree of active worker allegiance to unions still varied considerably. For example, at the 'greenfield' case study firm unionism has never taken off to any degree. The passive views of Brastemp-Rio Claro workers suggest that, even if workers there think unions are good in principle, they have not been and are not expected to be of relevance to that particular workplace. On the other hand, a very different but equally complex situation arose at the Consul factories. Despite their high level of unionisation, the workforces of both Consul factories appear to be very dissatisfied with *Sinditherme* due to its inactive and unrepresentative approach on both wage and workplace concerns.

More generally, the workforces of Consul, Brastemp-São Bernardo and Enxuta want and expect a union which is concerned with the workplace and labour process changes taking place at their factories. However, their demands do not extend to what

workers presently consider to be political-unionism or to the amalgamation of union policies and structures. There has - as yet - been little acceptance of the PT or of CUT's (or *Força Sindical's*) policies or role by these workers.

Even still, the 1979-84 conjuncture suggested that when unions combine a genuine concern for workplace relations with an unstable political-economic situation workers have responded to collective calls by local and national organisations. In this regard, while the 1985-94 period was not as unstable as 1979-84, this research has also suggested that if union policies are more closely linked to workplace issues most unions should be able to encourage a more pro-union (if not collective) stance by workers. The next chapter puts this to the test through a consideration of union identity developments.

## CHAPTER 7:

### UNION IDENTITY AND MODERNISATION

#### 7.1 INTRODUCTION

The aim of this chapter is to analyse how the unions in each location have responded to previous chapters' description of the 'politics of modernisation'. Have unions chosen to pursue new strategies to enter factories and gain the 'hearts and minds' of workers and have they been successful? Secondly, when they have developed such an approach has this meant that they have had to dispense with a broader political role? The nature of these responses represents the third link within the modernisation schema.

Some optimists suggest that employers will provide a more positive, inclusive role for unions within the organisation. More sober assessments acknowledge that even if this is not the case unions will still have to adjust their approach to retain any relevance for workers. However, as discussed in Chapter 2, the continuation of an ambiguous institutional and a harsh attitudinal climate already presents considerable behavioural constraints on Brazilian unions. In addition, Chapters 4-6 confirmed that modernising firms are controlling workers more and that unions can and are being more easily marginalised by the policies of the more advanced firms. Consequently, as suggested by the sceptical literature, both individual and collective opportunities for resistance have become even more problematic.

Nevertheless, Chapter 6 also noted that 88% of workers thought unions should do something and that this was particularly pronounced in terms of workplace/labour process issues<sup>1</sup>. However, these views were qualified in important respects at the two comprehensively modernised sites. For example, at Brastemp-Rio Claro, workers frequently reflected the view of one of their number who said, 'Unions are

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<sup>1</sup> Table 6.13.

important..they protect workers..but not here, they are not needed here'<sup>2</sup>.

At Consul, on the other hand, a number of those workers who were in favour of unionism also balked at the idea of unionism at that site, but from a different perspective. Their views are neatly summed up by one who said 'Union?..we don't have a union here...if you complain to the union here you are out on the street the next day!'<sup>3</sup>. In comparison, many workers at Brastemp-São Bernardo expressed strongly felt views of unionism as an active, independent force in Brazilian society and at the factory floor.

Up to this point, therefore, this thesis suggests that the case studies are represented by quite different industrial relations environments. This chapter uses the dynamic model of union identity presented in Chapter 1 to unravel these complex local situations. Such a model allows the thesis to analyse whether these unions have both the desire and the capacity to effectively respond to the policies of modernisation.

On the basis of this analysis this chapter argues as follows. First, even the actions of a well organised, active and representative union (e.g. at Brastemp-Rio Claro) may not be enough to combat the policies of a comprehensively modernising firm, particularly one which locates in a 'greenfields' site. Theoretically, low wages, low education levels and macro instability could be used to the advantage of either the employer or the union. However, a necessary (but not sufficient) condition to the union building on these features is that it already has a strong foothold in that factory.

On the other hand, the policies of comprehensively modernising firms may not always be enough (e.g. at Consul) to negate a union's ability to gain worker support. This is particularly so in cases where active unionism has a history but in which a moderate union has emerged as a competitor. As long as unionism has a base, what is required is that the union has an engaged relation with workers. However, the circumstances in which the modernisation process acts to create both new workplace concerns and greater real opportunities for action by unions may be rare.

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<sup>2</sup> Brastemp, Rio Claro worker interview, RCL 18, 9/93.

Thirdly, an additional problem for unions is that modernisation may act to heighten an existing conflict within union policy. That conflict concerns balancing their resources and agenda between firm specific issues and broader political themes. The task of being representative while not becoming merely a social welfare agency or some detached political movement is becoming more difficult.

After introducing the unions and restating the specific themes and concepts used in the analysis (section 7.2), this chapter analyses union identity at each of the case study sites. Section 7.3 briefly reviews the identities of the unions at the locations where modernisation is the least advanced (Brastemp-São Bernardo and Enxuta). However, the union identity-modernisation relationship can be more deeply investigated through the analysis of the two locations where modernisation is comprehensive. This is done in section 7.4.

Subsection 7.4.1 looks at the experiences of all three groups (now the CUT unions in Rio Claro and Joinville and the moderate union in Joinville) in their early campaigns to gain control of the union. Using official records and statutes, an initial attempt is also made to describe differences in their identities. Subsections 7.4.2 and 7.4.3, on the other hand, use the more dynamic identity model to compare the unions' strategies during the incipient (1985-90) and more comprehensive (1990-94) modernisation periods. Section 7.5 summarises and concludes this analysis.

## **7.2 THE CASE STUDY UNIONS AND IDENTITY ANALYSIS**

### **7.2.1 The Case Study Unions**

The case study union contexts differ greatly (Figure 7.1). For example, the São Bernardo metal workers situation contrasts with the other union contexts as they are a large, well resourced, organised and influential organisation in the major industrial hub of Brazil. As noted in Chapter 2, this union played a key role in the development of a

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<sup>3</sup> Consul worker interview, Con II 14, 11/93.

more representative union movement, in the formation of the Workers' Party (the PT) and in the 1980s transition to democracy. However, the case study firm they represent (Brastemp-São Bernardo) is less modernised than many of the other firms within their ambit.

**Figure 7.1: Identifying Features of the Case Study Unions**

Plant	Place	Union Name	Broad Union Type	Union's political links	Union central Links
BRASTEMP	São Bernardo	São Bernardo Metal Workers	Militant	Workers' Party	CUT
CONSUL	Joinville	( - 1989) <i>Mecânicos</i>	Militant	Workers' Party	CUT
		(1989 - ) <i>Sinditherme</i>	Moderate	"none"	Close to FORÇA SIND.
BRASTEMP	Rio Claro	Limeira and Region Metal Workers	Militant	Workers' Party	CUT
ENXUTA	Caxias do Sul	Caxias Metal Workers	Militant	Workers' Party / PC do B	CUT/ CGT

**Notes:** Força Sind. = Força Sindical; CUT = Central Única dos Trabalhadores; CGT = Confederação Geral dos Trabalhadores; PC do B = Communist Party of Brazil.

In stark contrast, the unions at the other three locations are small, regional entities in much less industrialised locations. The CUT and the PT are also very important to the union covering one of the comprehensively modernised locations (Brastemp-Rio Claro). Yet CUT/PT groups only share power with Communist groups at Enxuta's union. In addition, while the CUT is important to the Joinville *Mecânicos*, this union has formally lost coverage for workers at the other comprehensively modernised site (Consul III) and the other partially modernised site (Consul II). The

present union at these two sites (*Sinditherme*) claims to take a neutral political stance. Yet there are indications that it has aligned itself with *Força Sindical*.

The case studies also offer a vivid, but inconclusive, picture of union identity when looked at using unionisation statistics (Table 7.1). For example, militant unionism at the two most advanced sites (Brastemp-Rio Claro, Consul III) and Consul II face difficulties either due to ‘greenfield’ conditions or because of the installation of a moderate union. However, unionisation is much higher (50% vs 16%) at the firm (Consul) covered by the moderate union (*Sinditherme*). In comparison, while CUT and radical groups dominate the unions of the two least modernised factories, unionisation also differs significantly between them. Brastemp-São Bernardo has an unionisation rate of 79% and Enxuta 25%.

**Table 7.1: Unionisation: Population and Sample, 1993-94**

UNIONISATION	POPULATION	SAMPLE
TOTAL:	46%	47%
FIRM:		
Brastemp-São Bernardo	79%	88%
Consul II	55%	53%
Consul III	45%	50%
Consul Total	50%	52%
Brastemp-Rio Claro	16%	16%
Enxuta	25%	30%

**Source:** Company and union records and interview data.

Thus, if unionisation is the sole measure used, it is clear that militant unionism is not enough to ensure the union has a large ‘electoral’ base. Yet, whether this means that moderate unionism does any better in reality also requires more in-depth analysis. In preparation for this analysis the next subsection summarises the key themes and concepts used within this chapter’s analysis of union identity.

## 7.2.2 Themes and Concepts for an Analysis of Union Identity

Chapters 1 and 2 noted that many unions are concerned about the possible consequences of modernisation for workers and for their role as workplace and political representatives. Moreover, section 2.4 noted a number of instances when Brazilian unions have been able to make positive gains for workers, such as wage premiums, greater worker input and the modification of plans to reallocate workers into cells. In these cases, the worker-union relation appears to have been strengthened. Some of the more powerful and organised union groups have also sought to give modernisation issues a key place within their broader political strategies.

However, for the majority of unions the rules and structures of Brazilian industrial relations still act as a powerful constraint on their ability to have any real influence. As detailed in Chapter 2, there are still a number of competing 'centrals' and the monopoly of representation law and the compulsory union tax (the *Imposto Sindical* -IS) still apply. In consequence, the broader union movement remains divided. At the local level, the continuation of the monopoly of representation rule means that the prospect of union competition and co-ordination are minimised. On the other hand, the retention of the IS allows existing unions to continue to be funded without great pressure on them to be responsive to workers' needs.

Moreover, ambiguities still exist over union representatives' recognition and stability at the workplace, leaving these issues open to the attitude of the particular employer. These difficulties for union-worker relations and trade union identity are made all the harder as workers in general experience a great deal of job insecurity. Brazilian labour legislation still does not prevent employers from modifying job and wage classifications quite freely so as to maximise their flexibility to deploy workers. This also acts as a hindrance to policies such as occupational wage standards.

Within such an ambiguous and divided environment, unions will have difficulty competing with the more subtle, persuasive strategies of modernising employers. In addition, resource constraints may make it all the more difficult for a union to develop

separate policies for different groups of workers. The demands of these groups may, as this and other studies suggest, have become increasingly divergent from each other. The probability of success of any Brazilian union who wants to take on a militant and representative identity thus remains very slim - possibly more difficult than the past.

Through the application of an identity model to the case study situations outlined above, this chapter provides an alternative and more detailed perspective on unions' fortunes to those provided by current studies of key unions in key sectors. Moreover, while unionisation rates and structural indicators of union democracy provide a useful part of an evaluation of a union and its success, this identity model is dynamic and more sensitive to contextual constraints. It looks at the relationship between a union's interests, agenda and level of participant representation and the environment in which it finds itself.

For example, are unions responding to the specific concerns of particular skill groups? In terms of their agendas, how are they dealing with the training issue, stability/career concerns and the ILM policies of modernising firms? In terms of representation, are they pursuing more effective avenues for dialogue with workers and do their political campaigns have any relevance to workers? Moreover, how has each union's particular setting affected strategies and outcomes?

In this regard, Figure 7.2 below stylises four possible scenarios for unions. This provides a convenient reference point for the analysis to follow. For example, quadrant 'A1' represents optimist's preferred option wherein unions find a new role at the workplace and for worker relations. Quadrant 'A2' is their other option. Yet, as mentioned, this would mean unions have little role at the workplace. Quadrant 'B1', on the other hand, represents the best option that could be achieved in the view of sceptics. They see the potential for management 'abuse' as far too likely (i.e. quadrant 'B2'). Starting with the unions at the partially modernised sites, the next sections examine the union identity-modernisation relationship at the case study locations.

**Figure 7.2: Union Identity and Potential Union Workplace Outcomes**

Moderate Identity	(A1) Union finds a new, independent but collaborative role at the workplace	(B2) Union becomes essentially incorporated within the company
Militant Identity	(A2) Union is marginalised from the workplace	(B1) Union finds new ways to actively counter the influence of modernisation policies

### 7.3 PARTIAL MODERNISATION AND UNION IDENTITY

#### 7.3.1 The São Bernardo Metal Workers Union

As noted in Chapter 2, this key CUT union has developed a series of policies and structures for confronting the challenges of modernisation<sup>4</sup>. At the factory level these include the installation of factory committees and factory union directors at many local firms<sup>5</sup>. Unionisation rates are very high in these firms<sup>6</sup>. At the policy level, the union has shown its recognition that workers may like many aspects of modernisation through its more supportive but active analysis of modernisation proposals<sup>7</sup>. The results they have achieved at Mercedes Benz (in respect to outsourcing, cells and teams) suggest that the union is capable of forcing a more balanced and explicit bargain with companies within its ambit<sup>8</sup>.

At the broader level, the union's role in promoting the importance of modernisation issues within the *Câmaras Setoriais* framework and the *Contrato*

<sup>4</sup> For a review see; 1) DIEESE, 'The Brazilian Metalworkers and the New Factory's Challenge: A Negotiated Change at Mercedes-Benz', paper presented to the International IR/HR Network on Autos, IIRA 10th World Congress Washington D.C., May 1995; and 2) L. P. Bresciani, "Reestruturação Productiva e Luta Sindical - O Trabalho na Indústria Automobílica Brasileira - (1980-1995)", paper prepared for the project 'Estrategias de Lucha Sindical en America Latina', Centro de Estudios Sociológicos, El Colegio de Mexico, 1995.

<sup>5</sup> Bresiani 'Reestruturação Productiva', p24.

<sup>6</sup> *Ibid.*, p24

<sup>7</sup> *Ibid.*, p66-74

<sup>8</sup> See DIEESE, 'The Brazilian Metalworkers', Ch 3-5.

*Coletivo* debate demonstrates both their intentions and their influence<sup>9</sup>. However, these are clearly best case examples. As is noted below, in respect to Brastemp-São Bernardo, the union faces significant problems in other firms, particularly those in non-key sectors such as white goods.

At Brastemp-São Bernardo the union has pushed three principle mechanisms for building links with workers<sup>10</sup>. While congresses and assemblies are used for deliberation, much effort has been put into establishing factory directors, a CIPA (Internal Committee for the Prevention of Accidents) and a factory committee. Factory directors (unionists responsible for reporting on factory developments) exist for this like many other local factories. However, for much of the case study period Brastemp-São Bernardo factory delegates have had to play a clandestine role as they have frequently been under severe pressure from supervisors and management.

The CIPA has also been an issue in dispute between the union and the company. The union has used the CIPA to highlight much more than just health and safety issues. Salaries, benefits, production process and political developments have also been central to the São Bernardo union's CIPA strategy and the Brastemp-São Bernardo union journal.

Since 1981 the union has put principle emphasis on the importance of a (union based) factory committee. Buoyant economic conditions and a large-scale strike at this factory in 1985 helped the union to secure agreement for a committee in that year. Much argument then ensued over its composition and role. However, after just six months' operation and another strike (in 1986) the company disbanded the committee, the CIPA and made most members of these bodies, and other activists, redundant.

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<sup>9</sup> Bresiani 'Reestruturação Productiva', pp88-100.

<sup>10</sup> The following analysis is based on a great deal of research. First, 12 intensive interviews were held with Brastemp-São Bernardo union directors and factory representatives. Secondly, senior union staff was interviewed on 4 occasions so as to put the Brastemp-São Bernardo situation within the broader metal worker and CUT context. Thirdly, the researcher was often based at the DIEESE office in São Bernardo. At these times numerous discussions were held and materials reviewed in relation to the union. Finally, an intensive analysis was carried out of the union's journals and leaflets (1-2 per week) between 1985-94.

Despite a reduced ability to gain wage rises and the escalating level of demissions at the company, the union continued to poll its members and push the company to reinstate a factory committee. In fact, a new agreement looked likely after a strike in 1991. However, the company had already also begun its planned closure of one of the two São Bernardo factories (factory I) and its re-opening in Rio Claro. The confrontational nature of this demission process illustrated the company's non-negotiable style of industrial relations. Nevertheless, the hiatus caused by the closure and the subsequent factory invasion evoked widespread condemnation. With the company's new 'Vision' and modernisation plan, 1994 saw the union regain their factory committee - one which is largely under the terms they desired<sup>11</sup>.

The majority of the union's members at Brastemp-São Bernardo are unskilled workers. The union has therefore put particular emphasis on raising their wages to levels comparable to production workers in local auto firms. They have had some success in this regard<sup>12</sup>. However, those skilled workers who are active members play an important role and the union has also had some success in gaining the involvement of many lower paid white collar workers, despite their very different labour process situation.

Aside from the issues of wages, employment levels and factory mechanisms, the union's interests have spanned a broad range of issues. For example, the demand for the reinstatement of transport benefits (for all workers) formed a key theme behind strikes in 1988 and 1989. Thirdly, the plight of women and broader social and political concerns are also important to the union.

More subtle workplace issues, such as the pace and structure of work, have been approached using other tactics. For instance, go-slow campaigns (*operação taratuga*/operation turtle) are frequently used. The union has also had success in selective stoppages (*operação abella*/operation bee) in sensitive areas of operations which are starting to rely on JIT/Kanban.

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<sup>11</sup> Brastemp, *Regimento Interno da Comissão de Fabrica*, Unidade de São Bernardo do Campo, 1994.

<sup>12</sup> As noted in Chapter 4, these workers have gained more, relative to their skilled colleagues, than have lower skilled workers at Consul in the 1989-93 period (Table 4.5)

Other aspects of the company's recent attempts to modernise have not missed the union's attention either. For example, expanded internal training, while welcomed in principle, is criticised as not being linked to promotion or recognised skills upgrading. New training modules are ridiculed as being psychologically subversive and the lack of recognition of new tasks conflicts with the union's desire for a professional wage policy.

Another example relates to the reduction in reporting hierarchies. The company says these demonstrate its more open stance and has used their development to argue against the need for a factory committee. However, the union vigorously condemns these changes as cosmetic, cost-cutting measures which will increase responsibility, allow easier monitoring and make union action more visible to a still very anti-union management.

At a broader level, the union and many of their members are very aware of the company's plans. Journal analysis and discussions suggest that there is a high level of cynicism about the outsourcing, product and strategic approach of Brastemp, the Brasmotor group and its Whirlpool partnership. There is also an awareness that company strategy includes a decentralised human resources approach, one which seeks to make the most of weaknesses in union organisation in other areas of the groups operations (i.e. at Rio Claro and Joinville).

In summary, most other unions face a seemingly insurmountable task of gaining the degree of influence that this metals union has at Brastemp-São Bernardo. Even still, the São Bernardo union has not been able to make the same headway at Brastemp-São Bernardo that it has at other local firms. At the macro level there are constraints also. For example, since 1992 the union has expressed a desire to push the *Câmaras Setoriais* process into the white goods industry. However, employer intransigence and union weakness in other locations of white goods production constrain these objectives. As is discussed below, this is vividly illustrated by the experience of the Caxias metal workers at Enxuta.

### 7.3.2 The Caxias Metal Workers Union

In comparison to CUT's stronghold in São Bernardo, the Caxias metal workers union<sup>13</sup> is made up of an uneasy amalgam of communist, traditional and CUT leaders. A labour court intervention of the union took place during the fieldwork as a result of these clashes. The case study company Enxuta, whose members it represents, is not as old as Brastemp-São Bernardo but its processes have been the most traditional and familial.

Up to the 1987 a moderate group controlled the Caxias metal workers. While the incumbents espoused interest in issues beyond wages (e.g. women and a strike fund), wage discussions were fairly conciliatory and the union was happy to remain within the formal structure of industrial relations. The politically mixed directorate, which (aside from the six-month intervention in 1993) has held power since 1987, has been more radical and broad in its rhetoric. However, in practice they have also been more active. For instance, a CIPA has been installed, workplace surveys have been carried out and anti-extra hours and young person's campaigns have been held. Furthermore, the union has supported strategic actions (e.g. go-slows) around workplace themes and CUT policy on most issues (e.g. labour process change) has been emulated, at least in theory.

Yet even prior to the 1990s market crash the union faced an uphill battle to involve Enxuta workers in the union. The company was very anti-union, it used a high turnover 'policy' and workers had little education. Moreover, workers (women in particular) were often caught in a trap. Wages were low but if union action was pursued they were either sacked or would lose crèche and transport facilities. However, there were some issues which the union did try to make use of in their efforts to raise unionisation. For instance, the accident rate was high, promotions were haphazard, discrimination was rampant and supervision was onerous and overt.

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<sup>13</sup> The following summary is based on a great deal of research. First, 10 interviews were held with union operatives both before, during and after the 1993 intervention of the union. Research papers from the University of Caxias were also referenced in an effort to expand the questionnaire-based discussions. The other source developed by the researcher was a review of the union's pamphlets (1-2

A large scale, largely uncontrolled, strike broke out at Enxuta in 1990. Workplace conditions and employment uncertainty had reached intolerable levels. Yet the end result was that most unionists were sacked. Volatile market conditions and the employer's anti-union stance meant that between 1990 and 1993 unionisation at the plant fell from 40% to 25% and only one CIPA representative remains in employment there.

Consequently, since 1990 the union has mixed its radical rhetoric with a more pragmatic approach to negotiation. One of the reasons for this was that many other local employers had modernised. While Enxuta was slow and piecemeal in this regard, it seemed clear to the union directorate that new strategies were required. More practical proposals dealing with health and safety, workplace processes and worker-union information exchange began to be pursued from this time.

Factory committees seemed out of the question in view of local employer history and the lack of support for this 'utopia' by most workers. Yet the union was able to gain greater access to many workplaces, courses on modernisation began to be provided and the union tried to build greater union support through pushing their services and by handing back the IS to *sócio* members. Also, in 1994 the union expanded its directorate and appointed activist-directors to discuss the union's recent policies (supportive but guarded) on modernisation with factory workers.

However, Enxuta remained an enigma. Unionists had been largely routed from the factory and the company still used many women, supervisory staff and paternalistic processes. Yet signs were emerging that the company was making efforts to offer workers a 'softer' (implicit) bargain. This created something of a dilemma for the union as, with a very weak base in the factory, they now have even less chance of gaining the 'ear' of workers.

In summary, this discussion has highlighted the very contingent and fragile nature of union identity. What appears to be a necessary (but not sufficient) condition

for union influence – an existing role in the factory – no longer exists at Enxuta. Despite a revised and probably more representative identity, the Caxias metal workers face an uphill battle to have any real, future role at Enxuta. The union falls squarely within the ‘marginalised’ quadrant of union outcomes noted in Figure 7.2.

The important outstanding issue for this chapter is, therefore, to analyse the relationship between union identity and modernisation at the two most advanced sites (Consul-Joinville and Brastemp-Rio Claro). How has each type of unionism responded to modernisation and have they been successful? Subsections 7.4.2 - 7.4.3 do this through a detailed review of the unions' identities over two sub-periods, 1985-90 and 1991-94. However, subsection 7.4.1 provides important background on these unions through a discussion of the struggles which emerged to control the union and via a number of structural indicators of union identity.

## **7.4 COMPREHENSIVE MODERNISATION AND UNION IDENTITY**

### **7.4.1 Establishing Control of and Administering the Union**

Like elsewhere in Brazil, combative unionist groups in Rio Claro and Joinville have faced many political and legal barriers in their attempts to gain control of their metals union. In both locations the local labour court became closely involved in electoral and jurisdictional disputes. The nature of these struggles is analysed below.

A militant group contested the election of the Limeira and Region (e.g. Rio Claro) metal workers union in 1984. After a second vote and then a dispute over voting procedures, the local labour court appointed an intervenor (*interventor*) to manage the union<sup>14</sup>. During the period up to the next election the intervenor appointed members of the moderate pre-1984 group to help run the union<sup>15</sup>. Yet despite claims of irregularities

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<sup>14</sup> See, Oposição Sindical Metalúrgico de Limeira e Região, 7/84, and Oposição Sindical Metalúrgico de Limeira e Região, *Boletim*, no 1, 5-20/8/85.

<sup>15</sup> The bulletins distributed between 1984-86 took a very aggressive, radical stance. See, *ibid.*, 5-20/8/85 to 12/86.

and the presence of military police, the opposition (now linked to CUT) won a new election in October 1986<sup>16</sup>.

Once in office the new directorate faced many pressures - from hostile employers, due to difficulties created by Government wage policies and as some local employers began to use more sophisticated management and workplace systems. The union was able to raise overall unionisation from 20% to 35% between 1987-92<sup>17</sup>. However, union membership at Brastemp-Rio Claro sits at 16% (1993)<sup>18</sup>. In comparison, the CUT group who won control of the *Mecânicos* in Joinville (in 1989) won with a high and still rising unionisation rate of 53% and a rate at Consul of around 60%<sup>19</sup>.

The pre-1989 *Mecânicos* directorate supported recent changes in the Constitution for workers' rights<sup>20</sup>. Yet they also praised the establishment of a union/employer run municipal industrial training centre and defended the continuation of the IS<sup>21</sup>. In comparison, the group which won the election in 1989 (with 70% of the vote) espoused radical politics, representative factory relations and a better deal for workers<sup>22</sup>. This opposition group began from a core of discontented, skilled unionists from Consul and Embraco<sup>23</sup>.

However, prior to taking office the *Mecânicos* had the coverage of Consul, Embraco and Kavo (a dental implement maker) removed from them. During February 1989 an application was made to the local labour court to set up a union exclusively for the three companies (*Sinditherme* - a union of refrigeration, air conditioning,

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<sup>16</sup> Ibid., 'Diretoria Eleita', 20/10/86.

<sup>17</sup> Figures from, Sindicato dos Metalúrgicos de Limeira e Região, *Boletim*, no 3, 1987; and Sindicato dos Metalúrgicos e Ourives de Limeira e Região, *Meta Luta*, no 137, 23/10/91.

<sup>18</sup> The unionisation figures used in this chapter come from both union records and company statistics. As the companies have to know the number of *sócio* members for whom deductions are made, their closeness to union figures serves to confirm the reliability of these figures.

<sup>19</sup> See footnote 18.

<sup>20</sup> Sindicato dos Trabalhadores em Oficinas Mecânicas de Joinville, *O Mecânico*, ano II, no 3, 5/88.

<sup>21</sup> Ibid., p1

<sup>22</sup> See, *Oposição - Força Operária*, Sindicato e Forte - 'Descubra 20 Bons Motivos Para Votar Na Chapa 3', 1989.

<sup>23</sup> Detail gained from interviews with João Batista, Union Secretary (*Mecânicos*) and Wilson Vieira, Union President (*Mecânicos*), (11/93). Corroboration of this history was made in Consul worker

refrigeration inputs and dental implement workers). A sufficient number of workers were transported to the state capital (Florianopolis) to make the application valid. *Sinditherme's* President was to be the recently retired training director of Consul<sup>24</sup>.

Despite legal applications and local mobilisation the *Mecânicos* have not been able to reverse this decision. In fact, the situation worsened. The most recent twist in this story was a 1993 legal decision that, while affirming the legality of *Sinditherme*, suggested that a clearer reading of the law would put Consul back with the *Mecânicos* and leave Embraco and Kavo with *Sinditherme*<sup>25</sup>. In view of the importance of Consul to Brasmotor/Whirlpool this interpretation is being tested up to the national level<sup>26</sup>.

The end result of this is that, left with a disparate group of smaller employers, the Joinville *Mecânicos* now have a much lower unionisation rate (40%)<sup>27</sup>. However, a more illustrative view of these changes is gained by looking at unionisation at Consul pre and post the 1989 union election. Compared to Consul *Mecânico* membership in February 1989 (over 60%), with *Sinditherme* this figure had fallen to 28% by May 1989 and it has taken nearly 5 years to bring unionisation at Consul (and overall *Sinditherme* unionisation) up to about 50% in 1994<sup>28</sup>. These observations suggest that *Sinditherme* may be less effective and representative than the *Mecânicos* might have been.

In summary, the above description of each unions' efforts to gain power suggests differences in their identities. At a formal level there are a number of other indicators (from statutes and about union elections) which can be used to shed more light on the identities of these unions. This subsection concludes with a consideration

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interviews and from an interview with the *Mecânicos* lawyer (11/93).

<sup>24</sup> The only aspect of this account which is disputed is who encouraged the original application for a new union. An interview with Evacir Meler, *Sinditherme* President, (5/93), suggested that worker pressure led to the establishment of the union and his presidency. The views of the *Mecânicos* and many Consul staff question this. Research into pay records at Consul (12/93) confirmed that Consul was still paying the *Sinditherme* president a (considerable) salary.

<sup>25</sup> See, Estado de Santa Catarina, Tribunal de Justiça, pasta 984, DJ no. 8962, 3/3/94, pp107-135.

<sup>26</sup> An interview with the *Mecânicos* lawyer, (11/94), confirmed that the case was being appealed to Brasilia and that he was already dealing with representatives of Brasmotor and Whirlpool in Joinville.

<sup>27</sup> See footnote 18.

<sup>28</sup> Ibid.

of such formal indicators.

First, the statutes of the *Mecânicos* and the Limeira metal workers are similar in many respects<sup>29</sup>. For example, both have a three year mandate and both stress the importance of solidarity, factory level representation, democracy, independence and struggle explicitly within their statutes. Non office holding *sócios* have opportunities to voice their opinions and to call assemblies (10-20% of *sócios* needed) in both unions. Each of these unions also makes use of a directorate structure made up of delegates from across the union's ambit.

In stark contrast, the *Sinditherme* statute stresses individualism and a non-political orientation<sup>30</sup>. Rather than encouraging voluntary participation, voting rights and benefits are removed for those who miss more than 30% of general assemblies. Elections are possible only every five years. Moreover, if one member of the directorate retires, dies or leaves prior to the end of this five year period an election is held for that post and the mandate of the others continues for another five years<sup>31</sup>.

*Sinditherme* as an organisation is made up of four full time administrators and seven (white-collar) union officers. It is also claimed that there are 15 factory representatives in the three factories<sup>32</sup>. However, no provision is made for these representatives in the statute, neither is there any mention of the importance of factory level representation in that document.

To be eligible for a *Sinditherme* position a worker requires at least 2 years consecutive employment in the same employer of the industrial category (i.e. one of the

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<sup>29</sup> See, Sindicato dos Trabalhadores nas Indústrias e Oficinas Mecânicas de Joinville (the *Mecânicos*), 'Estatuto', Joinville, 1991; and Sindicato dos Trabalhadores nas Indústrias Metalúrgicas, Mecânicas e Ourives de Limeira e Região, (the Limeira Metals Union) 'Estatuto', Limeira, 1993.

<sup>30</sup> See, O Sindicato dos Trabalhadores nas Indústrias de Refrigeração, Aquecimento e Tratamento de Ar, Indústrias de Compressores Herméticos para Refrigeração e Indústrias de Artigos e Equipamentos Odontológicos, Médicos e Hospitalares de Joinville (*Sinditherme*), 'Estatutos', Joinville, 1/8/92 and as revised 1/3/93.

<sup>31</sup> *Ibid.*, (1992), p2 and (1993), p13.

<sup>32</sup> Noted in interviews with Evacir Meler, Union President, *Sinditherme*, Joinville, (5/93), and José Negerherbow, Union Secretary, *Sinditherme*, Joinville, (11/93).

three firms)<sup>33</sup>. For the *Mecânicos*, on the other hand, a worker merely needs to be a *sócio* for 3 months, something that a member retains for a period of six months when unemployed<sup>34</sup>. Voting requirements and a *sócio's* power to call assemblies further highlight these formal representational differences. For example, to call a *Sinditherme* general assembly requires at least 50% of *sócios* and to win a decision requires at least a 70% majority<sup>35</sup>. In comparison, only 5-10% of *Mecânico sócios* are required to call a general assembly and after this only arithmetic majorities are required to make a decision (as long as a minimum number of delegates are present)<sup>36</sup>.

In terms of electoral indicators, these suggest that *Sinditherme* is far from representative. For example, no public records could be located announcing a 1994 election. A local labour lawyer confirmed that the partial automatic re-election regulation had been made use of four times since 1989<sup>37</sup>. Furthermore, the existence of any real opposition faces great difficulties due to *Sinditherme* regulations, such as the two-year continuous employment criteria clause noted above.

However, the probability of opposition groups mounting a challenge to the *Mecânicos* and the Limeira union also looks increasingly less probable post-1989. For example, the Limeira group easily held off an opposition challenge in 1989, cleverly using the union journal and campaign tactics to greatly denigrate the second slate<sup>38</sup>. In terms of the *Mecânicos*, 1992 saw a local group challenge the incumbents. The existing CUT directorate comfortably retained office. However, this was not before the challengers made a number of well-publicised criticisms of the union's political stance, degree of worker concern and election procedures<sup>39</sup>.

In summary, this discussion has suggested a number of differences between the unions. First, the *Mecânicos* and the Limeira union seem to have a clear desire to build

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<sup>33</sup> *Sinditherme*, 'Estatutos', (1992), p2.

<sup>34</sup> *Mecânicos*, 'Estatuto', (1991), p7.

<sup>35</sup> *Sinditherme*, 'Estatutos', (1991), p5.

<sup>36</sup> *Mecânicos*, 'Estatuto', (1991), p9.

<sup>37</sup> Interview with *Mecânicos* lawyer, Joinville, 11/94.

<sup>38</sup> For example, see Sindicato dos Metalúrgicos de Limeira e Região (Limeira Metals Union), *Boletim*, nos. 57, 61, Limeira, 1989.

<sup>39</sup> See, *A Notícia*, Joinville, 26/1/92 p11 and 4/2/92 p5.

a union on a more representative basis than past traditions. They also exhibit a more independent, conflictual, broad and political modus operandi. Secondly, *Sinditherme* uses a more hierarchical, bureaucratic and closed structure. Its identity is best summed up as politically passive, service orientated and narrow.

This discussion also confirms a tendency for unions to solidify their hold on power. However, whether this is due to greater efficiency as a representative body or due to unfairness and oligarchy can not be consistently argued one way or the other using such data. Unionisation figures, administrative structures, statutes and electoral themes leave the consideration of how well these unions represent their 'electorates' insufficiently clear. Statements about factory floor involvement and structural features to mirror this do not in themselves confirm an active or effective involvement of the union in the (work) lives of their members. Secondly, services remain a central part of all unions in Brazil, in spite of any statements otherwise. Finally, all unions benefit from and make use of state structures and regulations.

Consequently, due to these uncertainties, the next two subsections take a more dynamic and informal approach to the consideration of the identities of these unions. As the process of modernisation (in general and in respect of these factories) has been shown to have gathered most pace after 1990, the analysis is divided between 1985-90 (ss 7.4.2) and 1991-94 (ss 7.4.3). This second period also covers the more severe political-economic crises.

#### **7.4.2 Union Identity in the Early Democratic Period (1985-90)**

An important difference in the experiences of the Limeira union and the *Mecânicos* between 1985-90 was that they gained control of the union in very different circumstances. The Limeira group began their tenure in relatively strong economic times (1986) while the *Mecânico* group entered office on the eve (1989) of a very unstable period. This had a strong effect on their identities.

By late 1990 the *Mecânicos* were having great difficulty resolving conflicting pulls on their identity whereas the Limeira union emerged with a more consistent and broad identity. However, it is not certain that the *Mecânicos* would have evolved in a similar way even if they had retained coverage of Consul, Embraco and Kavo. Nevertheless, even the Limeira union had trouble maintaining such an identity in the face of the comprehensive modernisation that had begun at Brastemp-Rio Claro. These identity developments are reviewed below.

#### a) 'New Unionism'-New Pressures: The Limeira (Rio Claro) Metal Workers

Between 1984-86 the then Limeira opposition adopted a radical approach. Politically they emphasised - the injustices of the intervention, agrarian reform, foreign debt non-payment, and the importance of CUT<sup>40</sup>. Industrially, the group promoted itself as a champion of independent representative relations and collectivism. Many local employers were criticised for mistreating and sacking unionists<sup>41</sup> and for pressuring workers to work extra hours, hours for which workers were frequently incorrectly compensated<sup>42</sup>.

In fact, due to high unemployment, from an early period the union took a negative stance to extra hours, whatever the remuneration<sup>43</sup>. Another example of the breadth of their industrial identity was their promotion of the need for minimum acceptable pay standards per occupation<sup>44</sup>. However, the union's interests did not extend beyond the industrial category to other groups or social issues.

In contrast, between winning office (1986) and the end of 1989, the union's identity changed. It started to put greater emphasis on its medical and social services<sup>45</sup>. Secondly, the union's agenda became more regularised with wage campaigns taking top

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<sup>40</sup> This is shown in union bulletins between 1984-86 (Oposição Sindical Metalúrgica de Limeira e Região, *Boletim*, 7/84 - 10/86, Limeira).

<sup>41</sup> *Ibid.*, 11/10/85.

<sup>42</sup> *Ibid.*, 10/85.

<sup>43</sup> *Ibid.*, no. 8, 1/86.

<sup>44</sup> *Ibid.*, no. 8, 1/86.

<sup>45</sup> e.g. unionist education courses were expanded. See Sindicato dos Metalúrgicas de Limeira e Região (hereafter the Limeira Metals Union), *Boletim*, 20/10/86.

billing in most union bulletins. This shift in emphasis of the union's identity seemed to reflect their increasing recognition of local realities and worker preferences.

Two examples illustrate the diverse pulls on the union's identity over this period. First, real wage losses had become very serious. Yet the union also began to take a less negative attitude to the role of the state in this issue. Increasingly, the union promoted the need for employer conformance to (albeit not ideal) Government wage rules or labour court decisions<sup>46</sup>. The *Câmaras Setoriais* was another issue which challenged the union. While the directorate favoured co-ordinated strategies, this plan was seen by many as 'top down' and abstract<sup>47</sup>. It seemed clear to the union directorate that more practical campaigns were needed.

A major catalyst for this change in union identity appears to have been low turnout rates for strikes. For example, a general strike call against the Sarney Government's wage policies (1987) met with minimal success and a similar strike in 1988 was very poorly attended<sup>48</sup>. The union faced a concerted campaign by employers, the media and Government that strikes were not the appropriate role of unions.

Accordingly, the 1989 general strike campaign was more strongly targeted to local issues and specific local employers. Furthermore, since 1987 the union had started to broaden its interests and had introduced a number of vehicles for increased collaboration with workers. A few examples clearly demonstrate these changes.

First, for each of the years 1987-89 the union handed back the IS (to all workers) at a public ceremony<sup>49</sup>. This occasion was used to promote active unionism and to condemn current industrial relations structures. Secondly, the union was more regularly and successfully addressing the theme of health and safety, as a general issue but most importantly due to the abuses of particular local employers<sup>50</sup>.

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<sup>46</sup> See *ibid.*, nos. 9 and 10, 1987. However, the union also argued that workers must push for the expansion of Constitutional benefits, *ibid.*, no. 24, 1988.

<sup>47</sup> *Ibid.*, no. 57, 1989.

<sup>48</sup> *Ibid.*, no. 14, 1988

<sup>49</sup> See, *ibid.*, nos. 59 and 60, 1989, for a summary of IS devolution between 1987-89.

<sup>50</sup> *Ibid.*, nos. 58 and 59, 1989.

Thirdly, the union held its first local conference (February, 1989), one that was more strongly directed to regional issues<sup>51</sup>. Fourthly, the union had begun printing regular (employer and thematic) bulletins about workers' rights and employers' obligations<sup>52</sup>. Finally, the union started articulating the particular difficulties women faced at work<sup>53</sup>.

Moreover, while gaining an involved membership was a difficult task, the union was determined not to dispense with their political agenda<sup>54</sup>. However, while their log of claims went well beyond real wage recuperation, the union consistently accepted (with a proviso that the fight must continue) the vote of members to accept the more narrowly based offers of employers<sup>55</sup>. Another example of the way the union tried to balance its views with the less militant views of most workers was to stress the links between the union's medical services, the evaluation of work related injuries and the promotion of workers' health and safety rights<sup>56</sup>.

Despite the difficulties the Limeira group faced, by mid-1989 the union was able to boast formal agreements which made up most real wage losses since 1986<sup>57</sup>. This high in bargaining gains coincided with a number of other important developments. The union was having some success in increasing affiliation (from 20% to 30% between 1986-88) and in 1988/89 the union co-ordinated a number of successful local issue strikes and local input into the single largest national mobilisation up to that point<sup>58</sup>.

The above discussion suggests that, up to 1990, the union was able to broaden its interests, keep a political agenda and develop more participative and accountable forms of relations with workers. During 1990 this process continued and included new

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<sup>51</sup> Ibid., no. 41, 1989.

<sup>52</sup> e.g. in respect to danger money, FGTS contributions and the recognition of extra hours.

<sup>53</sup> See, *ibid.*, no 36, 1988, for example.

<sup>54</sup> As evident in, *ibid.*, nos. 53, 57, and 65 for example.

<sup>55</sup> See *ibid.*, no. 36, 1988.

<sup>56</sup> Well shown in, *ibid.*, nos. 33 and 36, 1988.

<sup>57</sup> *Ibid.*, no. 55, 1989.

<sup>58</sup> *Ibid.*, no. 51, 1989

initiatives such as<sup>59</sup> company level health and safety checks, strike and homeless support, training discounts, theme specific assemblies<sup>60</sup> and workplace questionnaires<sup>61</sup>. However, competing expectations of unionism were complicating the orientation of the union, particularly as a number of local employers were starting to apply modernisation techniques.

For example, during 1990 the union began to criticise various local firms which were portraying themselves as the 'family' in which workers could show allegiance. One such firm (Varga) promoted itself as an example of democracy. However, they sacked union representatives, underfunded the *Cesta Básica* (food assistance basket) and used the police and overt supervision to deal with disputes<sup>62</sup>. Other firms promised an improved ambient but continued to permit poor working conditions<sup>63</sup>. However, while Varga was eventually required to readmit unionists<sup>64</sup>, the union had great difficulty finding ways to effectively dispute the strategies of Brastemp-Rio Claro.

The union mocked that workers entered Brastemp-Rio Claro with optimism and left it 'clean and blue (politically sanitised)'<sup>65</sup>. When workers asked them to compare salaries at the factory relative to Brastemp-São Bernardo the union was put in some difficulty. Hourly rates were well below São Bernardo levels but reasonable by local standards. Secondly, Brastemp-Rio Claro labourers only worked a standard shift of just less than 40 hours per week whereas the union's campaign was for a reduction of the official standard from 44 to 40 hours. In further contrast to other companies, the firm provided a safe, clean workspace and workers had new opportunities to participate and a career scheme. The union thus responded that absolute salaries at São Bernardo were also low. More positively, they attacked Brastemp-Rio Claro for compressing salary differentials, for unfulfilled career expectations and for a pace of production that

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<sup>59</sup> For examples of the following themes see, *ibid.*, nos. 69-71, 85, 86, 1990

<sup>60</sup> E.g. to peruse union accounts, discuss claims and decide on campaigns and delegates—see *ibid.*, nos. 76, 80, 85, 1990.

<sup>61</sup> E.g. over strike preferences/locations and the IS; see *ibid.*, nos. 85-87, 95, 96, 1990.

<sup>62</sup> See *ibid.*, (Special Edition - Varga), 2/90.

<sup>63</sup> E.g. the companies Mastra and Gurgel, *ibid.*, no. 70, 1990.

<sup>64</sup> *Ibid.*, no. 92, 1990.

<sup>65</sup> Quoted in interview with Adilson Cesar da Silva, Union Officer-Rio Claro, Limeira Metals Union, 17/3/93.

allowed eight hours production in six<sup>66</sup>.

Yet these statements had little impact and were not pushed any further. This was because criticising the compression of relative wage levels might highlight the delicate balance they were treading between a professional wage policy for skilled *sócios* and their desire to raise the wages of the unskilled. Moreover, many workers were enjoying/benefiting from many aspects of work at the firm. The union's lack of success and reticence to push may also have been because Brastemp-Rio Claro's transparent evaluation procedures made it easy for the company to locate and sack any who did not concur with their approach<sup>67</sup>.

Other companies were less integrated in their modernisation process and less subtle in their preference for employees who did not question 'managerial prerogative'. Thus, for some companies where unionists were harassed and prevented from distributing bulletins, the union was able to mount a simpler campaign<sup>68</sup>. The 'Re-admission Campaign' (1990) attempted to link the themes of union persecution, declining wages and reduced employment security in workers' 'eyes'<sup>69</sup>.

In summary, for a brief period after being elected the union reacted in a radical way to what they saw as a continuing level of exploitation by employers and the state. Yet they quickly recognised that they needed more regularised and down-to-earth campaigns and stronger relations with workers to have any chance of gaining their support. Moreover, while not an easy task, within their more practical approach they were still able to broaden their agenda and interests and be quite political. Their militant identity was quite successful when directed at partially modernising local factories. However, they found it far more difficult to adequately respond to the form of modernisation being employed at Brastemp-Rio Claro.

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<sup>66</sup> Limeira Metals Union, *Boletim*, (Special Edition - Brastemp-Rio Claro), 2/90.

<sup>67</sup> A point made by the union and by many of the worker interviewees.

<sup>68</sup> See, Limeira Metals Union, *Boletim*, no. 75, 1990, for examples.

## b) The Complete De-mobilisation of Militant Unionism? –The Joinville *Mecânicos*

In contrast to the situation at Limeira, the *Mecânicos* of Joinville entered the 1990s desperately trying to keep their radical approach intact after having three major firms removed from them. The union faced a dilemma. First, even if they discussed modernisation themes these held little relevance to the workers they now formally represented. On the other hand, while many aspects of modernisation had a political dimension, a political approach (their preference) was just that in which workers showed little interest. In consequence, as shown below, over this period the union's identity shows less clarity than the Limeira group.

Between 1989-90 the *Mecânicos* issued many bulletins condemning *Sinditherme*, the employers involved and the Government for allowing the situation to be legalised<sup>70</sup>. Workers were implored not to affiliate with *Sinditherme* nor authorise membership deductions. However, over time (and despite public protests) this became an increasingly futile strategy.

During 1990, therefore, while the union did not abandon its aggressive rhetoric, more emphasis was put on their considerable (but poorly used) services<sup>71</sup>. Also, the union was having some success in its wage campaigns. For example, in 1989 they gained total wage rises nearly three times that achieved by *Sinditherme* and in 1990 they secured wage decisions nearly two times that of their 'rival'<sup>72</sup>.

These results confirm that the *Mecânicos* were more militant as a wage negotiator. However, unless they could regain legal coverage for Consul and Embraco, those workers could not benefit from, or formally take part in, the union. A 1990 stoppage of Consul and Embraco workers was a curious occurrence in this regard. It appears that the union informally advised workers to voice their grievances internally

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<sup>69</sup> Early ideas behind this campaign are noted in, *ibid.*, no. 76, 1990.

<sup>70</sup> e.g. Sindicato dos Trabalhadores nas Indústrias e Oficinas Mecânicas de Joinville (hereafter *Mecânicos*), *Boletim Informativo - Sindicato Forte*, 'Trabalhadores da Consul, Embraco e Kavó do Brasil', no. 12, 1990.

<sup>71</sup> *Ibid.*, 6/90.

<sup>72</sup> Noted in, *ibid.*, 7/90; and in Sindicato dos Metalúrgicos de São Bernardo e Diadema, *Comissão de*

but the firms encouraged workers to leave. On exiting, factory workers were filmed and many of those with known sympathies to the *Mecânicos* were sacked<sup>73</sup>.

Historically, Embraco and Consul had lower labour turnover and more sophisticated employee relations than other local firms. However, the union believed that they were now starting to sack formally trained and higher paid skilled workers (often the most actively unionised), replacing them with younger, internally trained and lower paid workers<sup>74</sup>. Yet, most 1990 *Mecânico* bulletins did not pursue these issues. Instead they made strong calls for higher wages, an attack on inequalities, a debt moratorium, agrarian reform and class solidarity. While the union claimed to be interested in the workplace, in this period they articulated few constructive perspectives and did not set up mechanisms for worker involvement on these issues<sup>75</sup>.

For instance, they took a cynical attitude to internal training, a theme that could have been dealt with to some advantage. However, the involvement of the former training director of Consul in *Sinditherme* probably did not help to encourage such thinking. Secondly, the union recognised the difficulty of criticising internal employee policies when numerous workers were actually happy with many of these.

In summary, legally marginalised, the *Mecânicos* chose to take on an identity which involved minimal ambiguities - one which benefited a narrow industrial 'electorate'. In terms of their agenda, they supported CUT policies for a national system of collective contracts. However, they felt that if they pushed themes such as a professional wage policy too hard they could alienate many prospective members (i.e. the unskilled)<sup>76</sup>. In further contrast to the Limeira union, the *Mecânicos* took a less compromising approach to issues such as extra hours payments. They won premiums for extra hours twice their level in Limeira (100% vs. 50%)<sup>77</sup> and they didn't pursue a 'no extra hours, extra jobs' campaign until 1992-93.

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*Fábrica dos Trabalhadores da Brastemp*, São Bernardo do Campo, no 2, 12/91, p3.

<sup>73</sup> As claimed by Wilson Vieira, President, *Mecânicos*, Joinville, (5/93).

<sup>74</sup> Ibid.

<sup>75</sup> The following points emerged from interviews with Wilson Viera, President, *Mecânicos*, particularly in 5/93. The union did, however, try to infiltrate CIPAs.

<sup>76</sup> Ibid.

The *mecânicos* were reacting aggressively and defensively to a very tough situation. In fact, after 1990 this union directorate had to fight very hard just to remain in existence. More generally, as the next subsection makes clear, nation-wide developments in the early 1990s served to force all these unions to make even greater changes to their identity than was the case in this period.

#### **7.4.3 Macro Instability, Modernisation and Union Identity (1991-94)**

The period 1991-94 was particularly challenging for all three unions. First, while the Government's more open economic policies led many employers to close or 'downsize', there was clear evidence that many firms were applying modernisation policies<sup>78</sup>. Secondly, the economic and political environment was becoming very unstable. On the one hand, the Government had put a limit on wage negotiations. On another level, revelations about executive corruption encouraged a significant proportion of the Brazilian population to protest<sup>79</sup>.

These circumstances further exposed differences in the identities of these unions. First, modernisation developments and rising employment insecurity created difficulties for, and contrasts in, union policy and action<sup>80</sup>. Secondly, political turmoil opened up an opportunity for unions to pursue political objectives.

The response of *Sinditherme* was very passive and unrepresentative at both levels whereas the *Mecânicos* tried to reach out to workers and, eventually, to address modernisation themes. Yet politics and a regrouping of union structures remained their principal preoccupations. In contrast, the Limeira union demonstrated that it is possible for a union to have a broad agenda/interest base and representative, independent relations with workers. However, their local issue approach continued to work much less well in situations where modernisation strategies were well developed. The following discussion demonstrates these developments.

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<sup>77</sup> See, *Mecânicos*, Boletim Informativo - Sindicato Forte, 11/90.

<sup>78</sup> As discussed in Chapters 2 & 3.

<sup>79</sup> Nearly 500,000 people marched in the streets of São Paulo city alone in September 1992 - Limeira Metals Union, Meta Luta, no. 175, 9/92.

### a) 'New Unionism'- New Strategies: The Limeira (Rio Claro) Metal Workers

Between 1991-94, the Limeira union showed a more consistent preoccupation with the challenges of the internal strategies of employers. They tried to reach out to a broader concept of the worker by characterising the union as having a 'body and a soul'<sup>81</sup>. The body related to leisure, health and so forth whereas the soul sprang from a combative, collective stance. Discussion forums and activities for the worker, their family and other social groups were intended to bind these together.

For example, by 1991 the combination of mass demissions and company reorganisation led the union to more methodically criticise aspects of factory modernisation. The union saw considerable mutual advantages to improvements in production and quality, including better health and safety, reduced hours and real wage growth<sup>82</sup>. Yet most local examples only served to confirm their view that employers were merely increasing work risks and holding down wages while not employing more workers or giving employees any real 'voice' at work. The union supported a professional attitude to work but not 'quality of production without quality of life'<sup>83</sup>.

In their campaigns they also became more nuanced. For example, following the success of labour court decisions that unionists at a number of local firms should be reinstated<sup>84</sup>, the union took its reintegration campaign to new levels<sup>85</sup>. In line with its policy that 'the place of a unionist is on the factory floor', the union produced a media campaign which they took to the local council, Brasilia and the ILO<sup>86</sup>. Significant support was obtained encouraging the union to widen the campaign. They did this by combining the readmission issue with that of salary justice within their 1991 'Salary

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<sup>80</sup> Chapter 2, section 2.3.2 noted how this applied to the two main union 'centrals'.

<sup>81</sup> This concise terminology was used in 1993, e.g. Limeira Metals Union, Boletim Especial - 'A Alma e o Corpo do Sindicato', Limeira, (9/93). However, the approach can also be gleaned from the union's actions post-1991.

<sup>82</sup> See, Limeira Metals Union, Boletim Especifico aos Trabalhadores da Varga, 19/8/91.

<sup>83</sup> Ibid., this paraphrases the subtitle of this bulletin.

<sup>84</sup> By 1991, 30 trade union directors and other unionists had been demitted from local factories (ibid., no. 128, 1991).

<sup>85</sup> These readmission decisions are reported in, ibid., no. 144, 1991.

<sup>86</sup> See - Sindicato dos Metalúrgicos de Limeira e Região, Dossier - Contra Demissões e Afastamentos de Sindicalistas, São Paulo, 1991. On the campaign and the support it received see, Limeira Metals

and Democracy' campaign<sup>87</sup>.

In terms of the union's interests, these broadened further and became more co-ordinated between 1991-94. For instance, they helped establish a local group which developed an information and action campaign against the crisis and Collor<sup>88</sup>. The union also promoted stronger links with CUT unions in other sectors<sup>89</sup>. In 1992, they published a straight-forward, informative journal for the families of workers on the breadth and importance of unionism<sup>90</sup> and in 1993 teachers rights were added to their interest base and the 'body and soul' campaign became more explicit<sup>91</sup>.

In relation to services and representative relations, during 1991 the union held more unionism courses, many questionnaires were carried out and another IS handing back party was held<sup>92</sup>. The year 1991 was also marked by their second regional conference. This conference recommended that more effort should be put into understanding workplace change and workplace attitudes<sup>93</sup>. These initiatives were bolstered in 1992 when the union structure was expanded<sup>94</sup>.

These policies and campaigns appeared to be having a positive effect as *sócio* membership reached 35% by November 1991<sup>95</sup> and nearly eight thousand people attended the 1992 IS handing back party<sup>96</sup>. This was in spite of the union proposing, and an assembly accepting, a new tax to cover the costs of specific campaigns<sup>97</sup>. However, in spite of these apparent successes, it is sobering to note that none of the 240

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Union, *Meta Luta*, no. 132, 1991.

<sup>87</sup> Ibid., no. 142, 1991.

<sup>88</sup> Ibid., no. 142, 1991.

<sup>89</sup> Ibid., nos. 106, 107, 109, 110, 116, 136 (1991) and 23/12/91.

<sup>90</sup> See, Limeira Metals Union, *Informativo - O Metalúrgico em Casa*, ano 1, no. 1, 5/92.

<sup>91</sup> Limeira Metals Union, *Meta Luta*, nos. 193, 193 207, 208, 209, 211 (1993) and Special bulletin - 10/93 ("body and soul theme"; education)

<sup>92</sup> Ibid., nos. 116, 123 and 122, (1991), (on the IS).

<sup>93</sup> See, Sindicato dos Metalúrgicos de Limeira e Região, *Resoluções - 2nd Congresso*, Limeira, 15-17/3/91.

<sup>94</sup> Limeira Metals Union, *Meta Luta*, 3/92 and nos. 160, 180 and 182, 1992.

<sup>95</sup> Limeira Metals Union, *Meta Luta*, no. 137, 1991 and footnote 60.

<sup>96</sup> Part of the contributions made by members to a campaign fund were also returned on that day, but only to *sócios*- *ibid.*, no 171, 1992.

<sup>97</sup> Ibid., no. 114, 1991. The campaign tax represented 5% of salaries in April and October.

delegates to attend their 1991 conference were from Brastemp-Rio Claro<sup>98</sup>.

Contextual factors were still having a significant affect on the union's identity during these years. For example, improved economic conditions in 1993 allowed greater advances to be made on the industrial front. In comparison, in 1992 the political side of their campaigns peaked on the wave of protest sweeping the country. The union also had its own election in 1992.

Even still, the union's criticism of modernisation did not stop in 1992, especially when linked to their health and safety and unionist persecution campaigns. Despite the modernisation claims of many firms, few escaped accusations of dangerous, dirty work environments or that workers were not being provided with the required equipment<sup>99</sup>. The union used this situation to push the application of the law via an active campaign ('My hands are the only ones I have')<sup>100</sup>. This campaign included public meetings, the involvement of a doctor in factory evaluations and significant worker input<sup>101</sup>

Local companies such as Varga continued to be key targets for (modernisation) criticism<sup>102</sup>. However, Brastemp-Rio Claro was also strongly denounced when they became more open in their preference for non-unionists (by sacking a recently elected union delegate and offering non-unionists free transport). The union now felt it had a clear issue upon which to commence a more open critique of the company<sup>103</sup>. This was fuelled when Brastemp-Rio Claro fired a number of workers in defiance of a temporary stability decision<sup>104</sup>. The union also dared to criticise the strategic role of Brastemp-Rio Claro within Brasmotor /Whirlpool<sup>105</sup>.

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<sup>98</sup> Limeira Metals Union, Resoluções - 2nd Congresso, p20.

<sup>99</sup> Ibid., (Special - Accidents), 8/92.

<sup>100</sup> Ibid. This bulletin notes initiatives taken and to be taken, as noted here.

<sup>101</sup> Workers were encouraged to use their CIPAs and the newly created 'map of risk' initiative to evaluate their factory's safety conditions. These initiatives were expanded in 1993, see *ibid.*, nos. 209, 210, 1993 and 10/93 (Special - Health).

<sup>102</sup> Limeira Metals Union, Meta Luta, Special - Varga, 6/7/92.

<sup>103</sup> See, union announcement in, Díario de Rio Claro, 5/2/92.

<sup>104</sup> Limeira Metals Union, Meta Luta, Special - Limeira, 23/6/92

<sup>105</sup> Limeira Metals Union, Meta Luta, no. 173, 1992.

However, other issues of concern at Brastemp-Rio Claro continued to be less easy to articulate as pay and conditions were good by regional standards. Secondly, while the union saw faults in the proportion of workers who could progress in the career scheme and the criteria upon which promotions were made, they could not be seen to be against career schemes in principle. The union was increasingly aware (and critical) of the Brastemp-Rio Claro model but still unable to do much<sup>106</sup>.

With the demise of Collor in 1992, the union's campaigns took on a greater workplace emphasis during 1993. The union's overriding complaint continued to be - what modernisation was, compared to what it could be<sup>107</sup>. Their specific criticisms included the negative effects of outsourcing, the lack of employment stability and the 'subversive' nature of participation programmes.

The union portrayed modernisation as an attempt by companies to encourage individualism and turn worker allegiance away from the union and to the 'family' of the company<sup>108</sup>. They also won victories, forcing Varga to let its workers decide on shift times<sup>109</sup> and gaining labour court and local government support for various other firms to meet their legal obligations. However, due to the greater consistency of the Brastemp-Rio Claro model, the company was not explicitly amongst these actions.

Yet the union had the issue of modernisation firmly in its sights<sup>110</sup>. For example, their 1993 congress concentrated on this theme and was preceded by the publication of a number of picture booklets and case studies which highlighted the union's view of how employer defined modernisation would only weaken worker 'voice'<sup>111</sup>. The positive potential of modernisation was not disputed but the union

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<sup>106</sup> Discussed during an interview with Adilson Cesar da Silva, Union Officer - Rio Claro, Limeira Metals Union, Limeira, 9/93.

<sup>107</sup> Limeira Metals Union, Meta Luta, nos. 189, 191 and 207, 1993 and 6-10/93 (Special Bulletins on Varga).

<sup>108</sup> This criticism included the 'Brazilian Skilled Worker' contest - Limeira Metals Union, Meta Luta, no. 210, 1993.

<sup>109</sup> *Ibid.*, no. 204, 1993.

<sup>110</sup> See, for example, *ibid.*, no 190, 1993 and footnote .

<sup>111</sup> Sindicato dos Metalúrgicos de Limeira e Região, 3rd Congresso - tese/resoluções, Limeira, 3-5/12/93. The booklets were entitled '-Fábrica do Futuro - Avanço ou Retrocesso?', 'Para Entender O Momento Político', 'Por uma Novo Estructura Sindical' and 'A Ilha'.

argued that this would only be guaranteed by collectivism and union co-ordinated involvement in such changes.

In summary, there appears to be little doubt that by 1994 this union had developed a type of identity which could be called broad, inclusive, militant and representative. Moreover, their strategies were at the same time practical, workplace based and political. However, the sophistication of the Brastemp model in this 'greenfields' location led to their failure to raise unionisation among the factory's well screened workers, at least up to 1994. As noted below, the Joinville *Mecânicos* also faced problems and choices in this period, albeit of a different nature.

### **b) Re-grouping to Confront Modernising Employers? – The Joinville *Mecânicos***

Compared to the Limeira union, less clarity can be seen in the identity of the *Mecânicos* over the 1991-94 period. It took some time before they sought to engage workers, companies or *Sinditherme* over modernisation issues. However, this was not just because coverage of Consul (Embraco and Kavo) had been removed from them as the *Mecânicos* were keeping up informal relations with workers at those factories<sup>112</sup>. Also, other firms within their ambit were implementing modernisation strategies<sup>113</sup>.

For example, during 1991 the *Mecânicos* put principal emphasis on their salary campaign and into persuading workers that political activism was both necessary and legitimate. Like the Limeira group, they also mounted a campaign (with the *Plásticos*) against the recession and the presidency of Collor<sup>114</sup>. However, while the union tried to involve workers at factories and to encourage greater participation at assemblies, most campaigns bore little relation to workplace change<sup>115</sup>.

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<sup>112</sup> Interview - Wilson Vieira, Union President, *Mecânicos*, 5/93.

<sup>113</sup> The union was acquainted with the strategy being used - SIGAM, 'Global System for Perfection and Improvement' - and had information booklets on the scheme in their office.

<sup>114</sup> Sindicato dos Mecânicos de Joinville (the *Mecânicos*), *Tribuna*, "Um ano de mentiras..." Joinville, 2/91.

<sup>115</sup> They and the São Bernardo metal workers did, however, have an understanding of Consul's strategies and the role of Brasmotor/Whirlpool (Sindicato dos Metalúrgicos de São Bernardo, *Comissão de Fábrica*, (12/91). Yet the *Mecânicos* did not publicise or push this.

In terms of services and worker relations, the *Mecânicos* showed further contrasts with the Limeira union during 1991. For example, while the IS was criticised as a means of incorporation there was no suggestion that it would be devolved<sup>116</sup>. Secondly, expanded services were publicised as an important reason to be a *sócio* but there were few explicit links of these to factory level, work rights activism. Thirdly, the union successfully continued its campaign for higher rates for extra hours, gaining 200% as the formal basic premium in 1991<sup>117</sup>. Moreover, the union continued to promote the striking of industrial labour as the means by which workers in general would emerge from their exploitation<sup>118</sup>.

In consequence, during 1992 the *Mecânicos* continued to fight a rearguard action for salary growth and political unionism. While 1991 saw the union win a reasonably good salary claim in the local labour court, employers appealed the decision. In their 1992 campaign the union continued to urge greater militancy<sup>119</sup>.

As for the Limeira Union, 1992 was also a union election year. Thus, amidst growing evidence of corruption in the presidency, political themes dominated the *Mecânico's* agenda and interests<sup>120</sup>. Many assemblies were called and the union's policy approach, accounts and services were opened-up to scrutiny and debate<sup>121</sup>. However, only a limited turnout occurred for an anti-Collor protest and the union lamented the apathy of workers in not taking greater interest in politics, the wage campaign or even day-to-day topics<sup>122</sup>.

Unlike their close colleagues the *Plásticos*, the *Mecânicos* did not, however, choose to directly confront the 'politics of modernisation' during 1992<sup>123</sup>. They were

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<sup>116</sup> *Mecânicos*, *Tribuna*, no.5, 1991.

<sup>117</sup> As reported in, *ibid.*, no. 3, 1992.

<sup>118</sup> Well illustrated in their 1991 publication, *Mecânicos*, 'A Greve' (the strike).

<sup>119</sup> *Mecânicos*, *Tribuna*, no. 6, 1992; and, *Mecânicos*, Special leaflet on industrial action - 1989-92 (untitled), 1992.

<sup>120</sup> Nearly every bulletin in this period contained comments on either the Collor government, wages or the union election, but few other issues.

<sup>121</sup> *Mecânicos*, *Tribuna*, 3/92 and nos. 5 and 6, 1992

<sup>122</sup> A point well illustrated by the language of, *ibid.*, no. 6, 1992.

<sup>123</sup> The *Plásticos* were well versed on modernisation issues. See, for example, Sindicato dos Plásticos de Joinville, *Boletim de Circulação Nacional*, 'Modernidade Pra Quem' (Modernity for who?), 1992,

aware of Consul's internal policies and informally shared the view of the *Plásticos* and Limeira union that modernisation, as practised, was very negative and undemocratic<sup>124</sup>. Yet they remained committed to an emphasis on building links between other local metals unions and the plastics group.

This may have been a sensible strategy as directly confronting Consul from a non-legal position looked premature. Furthermore, while the *Mecânicos* supported national CUT calls for a system of collective contracts and a professional wage policy, the union was very sensitive to claims that they only cared for skilled workers. While Consul and Embraco's redeployment, training and wage policies were seen as a serious aggravating influence on union wage policy for the various skill groups, the *Mecânicos* mainly represented lower paid, less skilled workers in a diverse range of small factories.

However, they were preparing in other ways for new factory systems. During 1992 they began work, along with state CUT headquarters, on a series of training courses for unionists and workers. The emphasis of these new courses was, how to improve relations with factory workers and how to confront the implications of new factory systems<sup>125</sup>.

Consequently, while critical, during 1993 the *Mecânicos* began to discuss modernisation more openly. For example, outsourcing was seen as a negative development rather than a feature of modernisation which may have both positive and negative effects<sup>126</sup>. More broadly, the development of a more 'practical' stance signified their recognition that they must widen their potential 'electorate'.

For instance, they now took a more conciliatory stance to companies who were starting to lay-off workers or compete with the union for the provision of services<sup>127</sup>.

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Joinville.

<sup>124</sup> Interview with Wilson Vieira, President, *Mecânicos*, 5/93.

<sup>125</sup> An exploratory course was held for 36 union officers and workers between 2-4 of June 1992 - *Mecânicos*, 'Relatório da 1a Tapa de Curso para Dirigentes', 2-4 June, 1992.

<sup>126</sup> Interview, Wilson Viera, *Mecânicos* President, 11/93.

<sup>127</sup> *Mecânicos*, Tribuna, no 4 and 6, 1993.

The survival of the union also required that their day-to-day activities turned more and more to the disclosure and enforcement of minimum standards incorporated in the Labour Code and local agreements<sup>128</sup>. Moreover, while their formal unification with the *Plásticos* signalled a more co-ordinated stance, the level of unemployment dictated that the union was now firmly against extra hours<sup>129</sup>.

In summary, it appears that practical problems had forced a broader and less radical identity onto the *Mecânicos*. Nevertheless, despite the adjustments they have been making, they still fall within the 'black hole' of those unions who have been marginalised. There are no similar legal barriers on *Sinditherme*. However, as discussed below, serious questions remain as to whether *Sinditherme* has developed an identity which adequately represents the expectations of Consul workers noted in Chapter 6.

### **c) Moderate Unionism–The New Reality?: The *Sinditherme* Experience**

In great contrast to these two CUT unions, in *Sinditherme's* first journal (1991) they focused on four themes - labour law, quality and productivity, union services and, the negotiation of inflationary adjustments<sup>130</sup>. First, the union sought to define quality and productivity as vital, positive initiatives that workers should embrace as part of their common interests with employers<sup>131</sup>. The union argued that all actors must make sacrifices and that this put new responsibilities on workers to gain new skills through training and education. Stability was not a statutory right, they argued. It would, however, be won by the individual working harder, smarter and in collaboration with the employer<sup>132</sup>.

A similar attitude to negotiation and the use of the law was made in terms of health and safety. The union urged the individual worker to put greater efforts into suggestions for work place improvements rather than relying on the provisions of the

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<sup>128</sup> Increasingly, these issues dominated the union's bulletins, e.g. *ibid.*, nos. 5, 6 and 10, 1993.

<sup>129</sup> See, Sindicatos dos Trabalhadores Mecânicos e Plásticos de Joinville, *Portão de Fábrica*, ano 1, no 1, 11/93.

<sup>130</sup> *Sinditherme, Jornal*, ano 1, no. 1, 11/91.

<sup>131</sup> *Ibid.*, p2

<sup>132</sup> *Ibid.*, p2

Labour Code or a collective militant stance<sup>133</sup>. Yet *Sinditherme* portrayed itself as the independent conduit through which workers should channel their concerns about real wages<sup>134</sup>. The other important area in which the union saw its role was as a service provider. That same journal detailed the extensive range of medical services, leisure activities and discounts that the union had for *sócios*<sup>135</sup>.

Relations with workers, companies and factory politics took other distinctive forms. First, few calls appear to have been made by their (white-collar) factory representatives for assemblies or for views from the factory floor<sup>136</sup>. Secondly, the union actually supported holding down wage rises at Embraco in 1991 due to liquidity problems that the firm was facing<sup>137</sup> and they did not seek the views of members on this issue or in respect to the use of the IS.

On the other hand, *Sinditherme* justified the lower 1991 wage decision with the observation that they had delivered an agreement through compromise, one which had not been appealed to Brasilia and delayed by a drawn-out legal process<sup>138</sup>. Furthermore, they stressed that they had obtained salary growth for all salary groups rather than just for the lower paid<sup>139</sup>. This appears to have been an attempt by them to reach out to skilled workers in the three factories and conflicts with their claim that the *Mecânicos* were ‘pandering’ to the skilled to the detriment of the bulk of industrial workers.

In terms of politics, *Sinditherme* also condemned Collor but stressed that they were a-political and that workers should vote with their conscience rather than a predetermined political agenda<sup>140</sup>. However, their optimistic, employer friendly approach to modernisation continued to stand out as their major identifying

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<sup>133</sup> Ibid., p3

<sup>134</sup> Ibid., p3

<sup>135</sup> Ibid., p4. The journal also included paid ads for products (e.g. Consul fridges) for which members could get discounts, *ibid.*, pp2-4.

<sup>136</sup> i.e. records of only a few assemblies could be found for the 1989-93 period.

<sup>137</sup> Confirmed at interview with, Evacir Meler, President, *Sinditherme*, 5/93. The unions first journal (*Sinditherme*, *Jornal*, no. 1, p1) also underlines the union's view that workers' objective should be to improve company efficiency.

<sup>138</sup> *Sinditherme*, *Jornal*, ano 1, no.4, 10/92, p4.

<sup>139</sup> *Ibid.*, no.3, 8-9/92. Confirmed in Chapter 4, Table 4.6. It meant that they were not achieving wage growth for the bulk of their workers (the unskilled) as was the São Bernardo metal workers union.

characteristic. What the 'challenges of the market' required of workers was their further professional specialisation. From this would spring more efficient companies and improved conditions of employment<sup>141</sup>. Accordingly, they supported technological innovation and the outsourcing strategies of employers. While outsourcing might reduce the conditions of workers in outsourced firms, if workers took a conciliatory approach new internal opportunities would be more skilled and satisfying<sup>142</sup>.

*Sinditherme* saw itself as an archetype of progressive unions in 'first world' countries. Gone was an approach which condemned external, imperialist exploitation or the actions of an exploitative domestic elite<sup>143</sup>. Yet, while the union implied that its agenda was centred on the workplace, they did not seek workers' views or believe that the union had the right to be involved in factory level change, industrial training or attitudinal education. Their job was simply to motivate workers, a job they lamented as difficult due to the 'cynical and militant attitude' of most labourers<sup>144</sup>.

A similar narrow and non-active approach can be seen in their interests. *Sinditherme* was very active in satisfying the service needs of its *sócios*. However, workers in other unions or companies were of no concern to them and not a single reference was made in their infrequent journals or bulletins to women's rights, the homeless, the poor or any other cause.

However, after three years of moderate salary deals, and in stark contrast to the difficulties the *Mecânicos* were having on the wages front, in 1993 *Sinditherme* was able to boast a unique (1992 related) salary decision. They had gained the highest salary base (*piso*) in the region, salary adjustments for all salary groups and an agreement for immediate, full, monthly inflation adjustments for all their members<sup>145</sup>. This deal was better than the Government's guidelines and a very unusual occurrence anywhere in Brazil.

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<sup>140</sup> Ibid., no. 4, 1992, p2.

<sup>141</sup> Ibid., no 3, p4.

<sup>142</sup> Interview, Evacir Melor, *Sinditherme* President, 5/93.

<sup>143</sup> *Sinditherme*, *Jornal*, no.3, p4.

<sup>144</sup> Interview, Evacir Melor, *Sinditherme*, 5/93.

<sup>145</sup> As shown in, *Sinditherme*, *Jornal*, ano II, no.4, 5/93; and listed in, 'Mecânicos, *Tribuna*,

Furthermore, the rate of use of *Sinditherme's* services was reported as very high<sup>146</sup>. To these services the union proposed new holiday facilities and added a consumer co-operative to its range of functions for paid up *sócios*<sup>147</sup>. The '*Cesta Básica*', a negotiable right which was often left to employers to implement (e.g. in Rio Claro), had now become a major function of this union. Yet *Sinditherme* claimed that this was a major coup for workers and one which had been won through negotiation at the factory level<sup>148</sup>. The union was now prepared to push for further employee benefits such as crèches. However, there were suggestions of dissent to the union directorates' priorities. For example, an assembly was called for early 1994 to debate the *Cesta Básica* policy 'in the face of rumours that there was a group of workers at the plants who were against the union's role in this important initiative'<sup>149</sup>.

Finally, by the end of 1993 *Sinditherme* could boast a higher level of unionisation than that for the other two unions in this analysis<sup>150</sup>. However, there are other developments which suggest that its strategy was not exactly what its members believed it was or wanted and that focussing on unionisation rates alone can be very misleading. First, despite professing an a-political orientation, in 1993 the union proposed that the Regional Metals Federation should affiliate with *Força Sindical*<sup>151</sup>. Secondly, after nearly five years as the formal representative of workers at the three firms, *Sinditherme* decided that 1994 would be the year for the union to start conducting questionnaires at a factory level to find out what workers' views and demands were<sup>152</sup>.

In summary, *Sinditherme* certainly has a respectable unionisation rate and it does provide many services for its members. However, their identity is by no means active, broad or representative. The views' of workers at the two Consul plants make it

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*Sinditherme* - Consul/Embraco/ Kavo - 'Declaração', 9/12/93.

<sup>146</sup> Interview, Evacir Meler, *Sinditherme*, (5/93). He suggested that the union's doctors saw 80 workers (or their family members) per day.

<sup>147</sup> *Sinditherme*, *Jornal*, no. 10, 10-11/93.

<sup>148</sup> *Ibid.*, (Suplemento Especial), 2/94.

<sup>149</sup> *Ibid.*, p2.

<sup>150</sup> That is, about 50% compared to 40% (*Mecânicos*- their firms) and the Limeira Metals Union (only 16% at Brastemp-Rio Claro).

<sup>151</sup> Interview, José Negerherbow, Secretary, *Sinditherme*, Joinville, 11/93.

<sup>152</sup> Interview, Evacir Melor, President, *Sinditherme*, Joinville, 5/93.

clear that wages are important but also that workplace concerns are crucial issues for which the union has failed. The union has become incorporated within the economic and ideological apparatus of the firm in the way that neither optimists nor sceptics would salute.

## **7.5 CONCLUSION: UNION IDENTITY - THEMES AND AMBIGUITIES**

A prominent view in the recent literature is that factory modernisation will be a key force for changes in union identity. Optimists suggest that unions will be able to recapture their relevance to changed conditions by embracing more moderate identities. As was shown in Figure 7.2, there are two optimistic ideal types to how this moderation may evolve. First, unions may become more service orientated, company specific and narrow in their focus. Alternatively, union agendas and interests may broaden but lose a workplace focus. In contrast to optimists, this chapter's analysis of union identity has suggested that more pessimistic incorporation and marginalisation outcomes are more likely in the typical Brazilian context.

There were two levels to this chapter's interest in the union identity-modernisation debate. These were, how have unions adjusted and have they become effective and successful representatives at the workplace. Secondly, have unions' political aims become more difficult to sustain as a result of a growth in the importance of workplace change. These questions were addressed through the application of a model of union identity to the unions' experiences, especially those unions at the most modernised locations where both moderate and militant unions are involved. However, the experience of the unions at the least modernised sites provided a benchmark of what combative unions (e.g. the São Bernardo metal workers) can achieve in this industry and of how local circumstances can produce very different types of industrial relations outcomes (e.g. in Caxias do Sul).

The detailed review of union identity at the most modernised sites confirmed that a wide variety of union identities can emerge. Overall, the two CUT unions (the

Limeira metal workers and the *Mecânicos*) stand out in stark contrast to *Sinditherme*. Their agendas are broader, their interests encompass other groups and both appear to have clear formal and informal intentions to create active participant relations with workers. However, there are some important differences between the two CUT unions. Secondly, it is not possible to categorically argue that *Sinditherme* is not interested in modernisation or that it is not delivering the principal demands that workers have of a union.

After winning control of their union, the Limeira group began to moderate their focus away from radical political-economic themes. Their agenda became more regularised, co-ordinated and focused on practical day-to-day issues. A greater reliance on state structures and decisions also emerged. Yet this did not stop them from developing a broad range of industrial claims, from actively pushing the limits of state regulation or from continuing to promote links to the CUT.

On the other hand, the *Mecânicos* were far more reluctant to moderate their approach. They continued to push a broad, political agenda but narrow range of interests up to the point where circumstances almost forced them to cease to exist. At this later date they started to think more seriously about modernisation issues. They also began to take a less categorical view of wage-employment tradeoffs and the 'need' for regulation, negotiation and compromise. However, horizontal union re-grouping continued to be important to their strategy.

Both these unions were facing difficult and contradictory decisions as a result of modernisation strategies in their regions. Nonetheless, the practical demonstration of the Limeira union's credentials (e.g. their health and safety campaigns, the devolution of the IS and their clearer attempt to confront modernisation issues) distinguishes them from the *Mecânicos*. A similar concerted and broad approach can be seen in their range of interests compared to the *Mecânicos*.

*Sinditherme* also had a policy on modernisation and at the end of the period their services were quite extensive compared to the other two unions. Unionisation for

them was also much higher - overall (50%) and for their case study firm (50%). However, the analysis highlighted a number of serious formal and informally based caveats to the conclusion that they have been as representative as the other two unions. Their identity can best be summed up as active in its omission. Compared to the CUT unions, they do not wish to become involved in the workplace and feel that unions and workers should place less emphasis on the state and statutory regulation. Conciliatory relations with employers and a focus on the individual come through strongly in their policies and 'actions'.

Furthermore, there are aspects of *Sinditherme* which call into question the notion of 'modernity' and its relation to the Brazilian industrial relations context. For example, *Sinditherme* considers itself to be a progressive union and it does engage in modernisation terminology. However, its inaction, service focus and inclination to accept employer policy illustrate that even workplace modernisation does not necessarily produce qualitatively distinct breaks from past industrial relations habits. These past habits are also far from democratic.

A further point which highlights the difficulty of the Brazilian context is that all three unions stress the difficulty they have engaging workers on any topic, particularly in relation to the most micro workplace issue and the most macro political theme. The *Sinditherme* identity stands out as it drives a wedge between a workplace and a political orientation, concentrating on the traditional areas of services and wage conciliation. This may be a sensible strategy in view of employers' attitudes and as workers put a lot of weight on pay and union services. However, it does not mean that *Sinditherme* is representative, particularly in view of the picture of modernisation and workers' attitudes given earlier.

Nevertheless, the worrying issue for groups such as the Limeira metal workers is that, despite their innovative attempts to meld workplace, local and national themes within a much more representative identity, this has had little effect at Brastemp-Rio Claro. It is sour consolation to the union that the application of more sophisticated modernisation strategies at a 'greenfields' site have helped ensure a virtually non-union

factory in the midst of a region with rising union sympathies. Metal workers in Joinville seem more radical than their (unrepresentative) union while in São Bernardo and Caxias workers' views are now being more closely matched by union policy. However, at the Brastemp-Rio Claro site it doesn't appear to matter whether the union moderates its approach or not, workers still don't appear very interested.

More broadly, the case studies confirm that union identity is certainly a very complex and contingent issue. In this regard, the 1985-94 period has redefined that more representative form of unionism which began to emerge in the late 1970s. For example, the CUT unions of this study can be distinguished from *Sinditherme* as they push, question and challenge the system. However, the difficulties all unions face is amply illustrated by the fact that at each case study location unions still have to rely heavily on state institutions to secure formal gains. Secondly, formal union structures, local political economy and old industrial habits have meant that, while CUT unions can be distinguished from others, their ability to wield power and influence may be minimal outside of regions such as São Bernardo. Thus while the labour aristocracy debate may be clearer in principle, most unions may not be able to gain the foothold in their locations which would allow them to be more representative and effective in practice.

Finally, a few points about the specific policy dilemmas created for Brazilian unions (by modernisation) need to be made. First, it would appear that the continuing evolution of more representative and effective unions requires detailed policies for particular skill groups and workplace issues, in addition to the articulation of general union principles. While a policy stance of this nature will be difficult, these will be the types of issues the *Mecânicos* will have to deal with if and when they regain coverage of Consul, Embraco and Kavo.

Secondly, unions must more explicitly discuss and articulate the areas in which they see a state role as necessary and the areas for which they see it as an intrusion. All competing industrial actors' views must be integrated within an industrial relations framework. As it stands, the present framework is very ambiguous and unhelpful to the

development of an industrial relations system with some credibility.

The above point about the state serves to highlight another problem for the labour movement. Vertical union structures are important for the articulation of policies on issues such as Government regulation. However, firm specific modernisation practices may render the standardisation of anything beyond the most general of issues increasingly irrelevant. State regulation, political unionism and vertical union structures may become even more meaningless than they already are as modernisation progresses. The situation at Brastemp-Rio Claro may represent an early example of this dilemma.

## **THESIS CONCLUSION:**

### **THE 'POLITICS OF MODERNISATION' IN BRAZIL**

This thesis has analysed the effects of industrial modernisation on industrial workers in Brazil. How are firms changing, what effects is this having on work and workers' attitudes and how is this affecting union strategies? There are a number of schools of thought about what these effects might be. For example, optimists claim that management/workplace change and better firm level outcomes will be linked by a significant change in attitudes and behaviour.

Within the workplace, these linkages concern greater work satisfaction (due to new tasks) and employer allegiance as a result of more open employee relations and more generous employment conditions. This situation will require that unions be more moderate for them to have any chance of surviving. This may or may not involve them having a role within the workplace.

In contrast, other commentators claim that this schema is unrealistic. Many studies challenge the degree to which we will actually observe modernisation in a comprehensive form. One of the reasons for this is that the 'indigenous' context will modify the nature of any modernisation strategy.

A more fundamental critique concerns the attitudinal and behavioural links upon which the optimistic case is based. There may be comprehensively modernising firms and they may be achieving significantly better performance outcomes than other firms. However, sceptics argue that, rather than being based on worker allegiance and union co-operation, the attitudes and behaviour involved are rooted in more subtle and sophisticated forms of control.

Methodologically, the implication of these critiques is that a key way to test the optimistic argument is to compare the form, effects and linkages involved in examples of comprehensive modernisation with those involved at partially modernised sites. Empirically, therefore, this study chose a number of comparable firms from the white

goods industry which appeared to fit this dichotomy. This supposition later came to be verified.

The hypotheses of this thesis were based on a sceptical vision of modernisation. Theoretically, the thesis's re-evaluation of labour process theory helped to provide a framework for this study. The control argument emanating from many recent studies is an issue which has always been at the heart of labour process theory.

Moreover, the literature also confirmed that forces for change in work/labour processes emanate from many levels - from the factory regime, from the state and from TNCs. Yet the effects of these factors will not always be in same direction. For example, while most changes to work will reflect capital's greater power relative to labour, TNCs may sometimes act to force improvements in workplace conditions. Moreover, workers' responses to pressure (e.g. their 'games') may often act to further enhance the efficient running of the enterprise.

However, this study improved upon this 'politics of production' framework in a number of ways – in the conceptualisation of control, in the analysis of resistance and in terms of the integration of local, national and international factors. For instance, unions' responses to modernisation were analysed using a dynamic and contextually sensitive model of union identity. In addition, the study sought to integrate a consideration of how TNCs may be shaping the 'politics of modernisation'. This analysis was set against the harsh institutional and attitudinal setting within which Brazilian workers and unions find themselves.

On the other hand, while the 1985-94 case study period was volatile economically, the environment was politically and institutionally more open and democratic. Increasingly, employers were being encouraged to modernise and, theoretically at least, workers and their representatives were being made to feel more confident to voice their views and aspirations. With the continuation of low wages and education levels and high turnover in most parts of industry, it could be argued that the time was ripe for more positive and comprehensive modernisation experiments. A move from 'routinisation' to 'taylorised JIT' to more comprehensive examples of

modernisation, between 1980-1994, suggested to some that this would become the case.

Yet low wages, low education levels, high turnover and the continuation of many aspects of the corporatist industrial relations system may also have acted to encourage firms to embark on an 'easy' form of modernisation. Even if employers offer better conditions in 'exchange' for higher levels of quality and productivity, the balance of the 'implicit bargain' may still be very unequal. Brazilian employers may not have to offer 'their associates' many changes to their tasks, employee relations and employment conditions in order to secure motivated workers, dedicated employees, anti-unionists and moderate or inconsequential unions. Yet unravelling this debate required not only an indepth analysis of the companies but also detailed data from workers and their unions.

In this respect, while Chapter 4 noted that the comprehensive case study modernisers were achieving higher levels of quality, efficiency and productivity, managerial intent could be questioned. Workplace changes could be seen as controlling and unions were being excluded. However, the analysis was not conclusive as it was not based on interview data. Accordingly, Chapter 5 added a sample based analysis of work and work attitudes to the study. Chapters 6 and 7, on the other hand, examined the sample's attitudes to the employer and the union and how unions responded to this situation. Each of these chapters was guided by the thesis hypotheses and the specific questions which emerged from the recent Brazilian literature on modernisation. The data reviewed within these chapters confirmed that, while there had been important changes to the workplace, workers' attitudes were still very sceptical .

The study thus provided a unique snapshot of industrial sociology and industrial relations in Brazil. This applies not just in terms of the period but through the application of more refined analytical methods to detailed factory, worker and union data within a previously unstudied industry. A more detailed summary of the results of this research is presented below. The study's specific conclusions are placed within three thematic areas – Management's Control of the Workplace, Modernised Work and the Labour Process and the question of a 'New' Brazilian Industrial Relations. The

thesis finishes with a few reflections on the implications of this study for the analysis of work and the labour process.

### Management's Control of the Workplace

The specific modernisation model which seems to most accurately fit the case study industry is 'Japanese/lean production'. Yet the nature of modernisation showed variability between firms. Locational issues, TNC factors and anti-unionism were often behind this. Nevertheless, despite the differences between the firms', the comprehensive modernisers reacted particularly harshly to the prospect that their quest for new levels of quality would make them more dependent on the skills and motivation of their workers. Either minimal changes were offered and/or changes simply acted to organise and control workers in new ways. The principle strategies of all of the case study firms, and their basis, are summarised below.

There are two aspects which stand out when comparing overall white goods management in Brazil. First, employers with very similar requirements of production have (re) organised in very different ways. This seems to be primarily due to a combination of who controls the company (domestic or international capital) and the perceived threat of union power. Secondly, even amongst the two comprehensively modernised factories (both of which have minimal union threat) there are important differences in approach. For example, at Brastemp-Rio Claro more significant changes to employee relations and employment conditions are occurring while there has been a clear decision to concentrate on technological change at Consul III.

Separating the modernisation concept into management philosophy, organisational structures and specific features of the factory floor permits a better comparison of each company. For example, during most of the case study period the domestic firm (Enxuta) did not embrace flatter structures and a total quality mission, as did two of the Brasmotor/Whirlpool firms (Consul and Brastemp-Rio Claro). Familial, hierarchical, and autocratic control characteristics determined Enxuta's corporate form up until the crash in the market. However, after the market crash, flatter structures were forced on the company by the market and due to the conditions attached to a

Government rescue plan.

In the case of Brastemp-São Bernardo, despite the firm's early inclusion in the Brasmotor/Whirlpool group, the influence of the local union appears to have been the major factor behind their slowness to change. After all, Consul had a very similar approach to Brastemp-São Bernardo up to 1990 but changed it after they had a compliant union. That companies' attitudes to unions (by moving away from them or neutralising them) are more important than their need for skills is also evident from the Brastemp-Rio Claro relocation. These observations cast doubt on whether HRM/TQM approaches can be consistent with an independent union role within the 'new' Brazilian context. Present Brazilian HRM/TQM efforts are clearly very unitarist.

The changes which occurred to the management styles of the two comprehensively modernised firms also show distinct features. First, there is no doubt that both Brastemp-Rio Claro and Consul III embraced strategic TQM/HRM principles. These plans, however, reflected the product, market and management principles being developed by Whirlpool International, as applied to Brazilian conditions by Brasmotor. Thus, while each company's new quality mission was couched in terms of the 'family' (a term with strong links to past paternalistic practices in Brazil), the Brasmotor 'Vision' is no more than the local application of a multinational's global approach.

The variation of management styles across Brasmotor operating units does not diminish this point. The philosophy of Whirlpool is global planning with some local variation in product and human resource style - if such opportunities arise, if they do not conflict with global plans and if they offer greater profitability. The flexibility and cheapness of Brazilian labour and less cohesive industrial relations norms are simply competitive advantages to be made the most of.

Other developments support this more sceptical view of management. For example, a leaner management structure is evident at Brastemp-Rio Claro but only because of its pre-planned function within Brasmotor's divisional structure. Consul, on the other hand, has always had a lean management structure even before its complete

incorporation into Brasmotor. Brastemp-São Bernardo, however, remains a very top-heavy organisation despite its loss of operating autonomy to Brasmotor administrative structures. The interchange of key technical personnel between Brasmotor units and Whirlpool is another relevant observation in this respect.

Guaranteeing their investment in workers and work systems has also led the comprehensively modernised firms to develop structures which more strongly differentiate their labour force. On this issue there is variety amongst the firms also. For example, Brastemp-Rio Claro has been at the forefront in putting education-based barriers between their ILM and the external one. However, Consul also 'vets' the workers taken on at factory III through their knowledge of those workers employment history in factory II.

Secondly, it would appear that when a firm starts to modernise they might also feel pressures to (further) separate groups of workers. When Brastemp-Rio Claro first began operations management tried to minimise differences in the physical environment offered to the various skill groups. They also designed the career scheme so that, in theory, all workers would have the chance of filling the most skilled ('innovator') classification. However, despite being a 'greenfields' site, traditional relativities were interrupted. Men felt women were gaining unfairly from the training-based career scheme and the skilled saw the rise of a new type of semiskilled worker threaten their previous pivotal position in the factory. The company was forced to downgrade the importance of internal training as a factor in career growth and the career scheme itself was split so that the possibility of the semiskilled/unskilled competing with the skilled for promotion was reduced.

Consul uses a simpler method for separating skill groups. All tool room workers are housed in a separate area within factory II and the maintenance workers who work in factory III are functionally responsible to that factory II unit. Brastemp-São Bernardo has adopted a similar strategy. At that site, design and tool room workers (for a number of Brasmotor companies) are now housed in a different building. These labourers work under much better conditions than the direct production workers (their former colleagues) in the factories.

It therefore seems that even the company with the best chance of creating a new workplace culture and 'skilling' approach (Brastemp-Rio Claro) was, like the other firms, forced to differentiate their internal labour force. This was done for organisational and control reasons. More generally, these results suggest that modernisation may act to force Brazilian firms to build more sophisticated ILMs than was the case in the past.

The firms exhibited other significant differences in how they organised the factory floor. First, the imported technologies applied at the most modern firms greatly enhanced these firms productivity relative to the older plants. However, of no less importance to this outcome were factory layout adjustments and qualitative changes to worker responsibilities. Brastemp-Rio Claro and Consul III achieved much higher productivity by combining these elements in a complementary way. On the other hand, comparable factory examples suggest that mixed production systems (Consul II) fared worse in productivity terms than older but consistent factory systems (Brastemp-São Bernardo).

Nevertheless, the comprehensively modernised factory examples (Brastemp-Rio Claro and Consul III) showed some variety within their workplace models. Both firms have developed very streamlined production flow. Each has also introduced work systems such as JIT/Kanban and SPC. However, these work systems are more advanced in operation at Brastemp-Rio Claro. Moreover, Brastemp-Rio Claro has attempted to apply the principles of TQM/HRM in much more detailed ways. For example, while both firms provide significant training (on skills, systems and attitudes), at Brastemp Rio Claro quality circles discuss production and employment issues on a regular basis and, as noted above, an intricate career scheme was introduced. The scheme rewards training, work skills and attitudes and involves team members in the evaluation of themselves and others.

Despite the more advanced appearance of the Brastemp-Rio Claro model its effects were still questioned. The biggest uncertainty was whether the nature of control there was any less onerous than a Fordist model with no such opportunities, more supervision but less responsibility. Workers at Brastemp-Rio Claro have taken on many

new tasks and evaluating one's own colleagues could be a very onerous role. More generally, despite the spectrum of ways in which all of the firms have approached the effort-bargain, worker control still seems to apply. However, in the most modern firms the process was different and more 'negotiated' than the explicit control mechanisms of the factories with predominantly Fordist orientations.

#### Modernised Work and the Labour Process:

The importance of considering both 'objective' and subjective aspects of work represents a key contribution of an approach based on the labour process. The distinction between task execution and its conception helps to make this clearer. Studies which start at the point of production generate a body of information about production relations which allow the 'objective' and subjective basis of the implicit bargain to be clarified.

In this regard, the relational data produced by this research suggests a number of conclusions. For example, many aspects of an optimistic interpretation of the effects of modernisation on 'objective' aspects of the labour process have been confirmed. Also, it appears that the more co-ordinated and comprehensive a modernisation plan the more these elements will change.

The two examples of comprehensive modernisation contrast with the other factories in the way work has been altered and in the attitudes of some workers, namely the semiskilled. While the skill debate remains inconclusive, for both structural and definitional reasons, there are clear differences in the types of skills workers at comprehensively modernised firms are performing. A distinct and new type of effort bargain seems to have been introduced for these workers.

Within this implicit bargain these workers have many new and more complex tasks and responsibilities, both practical and conceptual. While at work they have a greater degree of involvement in what is done and in how things might be improved. They are also given a less onerous system of direct supervision, many training and education opportunities and often the expectation of promotion and career

development. Within this situation they are working harder, faster and smarter and with high expectations of further benefits. More generally, all workers like to be challenged, they want more skills and, in contrast to past studies, they enjoy the use of new techniques more than they do new technologies.

There were, however, a number of important caveats to this picture. All of these point to a more sceptical view modernisation. Due to workers' fears that they have not been and will not be fairly rewarded or given any real involvement in conception related issues, as they analysis moves from 'objective' to subjective issues the picture becomes more negative.

For example, not coincidentally, the new bargain has allowed firms to continue to pay very low wages. This is in spite of the much higher levels of productivity that those workers are providing. A combination of 'greenfields' location (which allows low but locationally reasonable wages to be paid) and greater employee screening has helped these firms to apply this new bargain to great effect.

A number of more specific issues further highlight this situation. First, while greater involvement and participation are provided the more modern a firm, these are very narrowly based, production orientated opportunities. Moreover, explicit and implicit incentives are being cleverly used to encourage this 'participation'. Secondly, there is both objective and subjective evidence to suggest that work in the most modernised firms has not made workers more skilled or more employable in the open labour market. In terms of education, the fact that the unskilled are now more qualified than the semiskilled confirms scepticism over the use of training and education by these firms.

Thirdly, in terms of work overall it is striking to note that Brastemp-Rio Claro workers are labouring very hard and intensively but they have relatively low feelings of interest or increased responsibility. In terms of specific tasks, Consul III workers are very unimpressed with their new responsibilities whereas Brastemp-Rio Claro workers are quite negative about the new techniques which they are expected to apply within their work. The new tasks of these workers are not in themselves harder or more

demanding. It appears to be the manner in which they have been applied and the lack of compensation for new tasks which is causing dissatisfaction.

Fourthly, despite the sophistication of new employee relations systems at the comprehensively modernised firm, there exists a good deal of cynicism and uncertainty about promotion possibilities amongst their workers. In terms of actual promotions, it appears that workers at the less modernised Consul II have fared best - despite their use of simpler, manual skills. More pointedly, workers at the most modernised workplaces are less happy with their system of evaluation than are workers at more traditional locations. The two comprehensively modernising firms use more formal systems and all workers fear the personal bias possible in informal evaluation. However, modern firm workers are still less than content.

For example, the use of cells in the evaluation process and the downgrading of demonstrated practical work skills within the equation have created much dissatisfaction at the Brastemp-Rio Claro workplace. All workers wish to say more about a broad range of workplace issues. However, this desire appears to have been muted at this factory. In comparison, Consul III workers demonstrate the fragility and 'cage like' effect of their situation through the expression of clear dissatisfaction with their wages (relative to Consul II), wages which are the same but are for very different levels of responsibility and effort. This is confirmed by the fact that Consul II workers actually feel less monitored and happier than do their colleagues in factory III, despite the much lower proportion of supervisory staff in Consul factory III.

Consequently, as in Burawoy's time, workers are still party to the production of goods, profits and their consent to these. Yet, while workers' new 'games' (e.g. their desire for career progress) help the firm, labourers are also making it clear that their consent is contingent on promises being fulfilled. Nevertheless, the policies of the new workplace encourage them to complain more about how quickly they progress, the criteria for progression, firm-based comparative wage justice, safety, cleanliness and training and think less about broader issues which might more deeply question the legitimacy of the firm. A key, possible vehicle for both other perspectives and resistance to the new factory regime is unionism. On the other hand, have Brazilian

unions 'realised' that modernisation offers them better chances of success through moderation?

### A 'New' Brazilian Industrial Relations?

An industrial relations system has many facets - the formal, informal and micro and macro dimensions. This thesis has provided material which allows some observations to be made on these aspects of the Brazilian industrial relations system. The 1985-94 period provided a unique opportunity to jointly examine macro, industry level and micro industrial relations themes using the experience of a previously unstudied industry in Brazil.

At the macro level, the years 1985-94 witnessed a further break from the very corporatist and normative model of industrial relations which had been instigated in the 1930s. The first clear rupture in this system (1978-84) has been well documented. During this period a new type of unionism, more dedicated to shopfloor relations, participant representation and radical politics flexed its muscles to great effect. The continuing maturation of these groups has occurred into the 1990s. However, the degree to which real change has been achieved, and its continuing growth, can still be questioned. This study suggests that 'new unionism' has added greater depth to its identity between 1985-94 but that many uncertainties remain as to its future breadth of influence. Major reasons for this are as follows.

First, while on a formal level the system is more open and less normative, key aspects relating to automatic financing and local unions' monopoly of representation still remain. While 'new unionist' groups often give back statutory contributions to workers, circumstances have led the 'new unionist' movement to support the continuation of these corporatist principles. Secondly, the existence of a number of union centrals vying for political hegemony (of what is still a very bureaucratic union system) has helped to perpetuate many of the labour movement divisions which existed in the past. One key legacy of this situation is very low levels of worker interest in vertical union relations and political unionism. Outside of key bastions of 'new unionism', this appears to have been maintained (if not exacerbated) in this period and

industry.

The CUT and *Força Sindical* are both very political organisations. Both also experience considerable difficulty gaining coverage of larger parts of the union movement. *Força Sindical* is, however, much more ‘top down’ and conservative. CUT, while still having to rely on the state for many of its campaigns and policies, is much more radical, representative and questioning. For some industries (e.g. autos), areas (e.g. São Bernardo) and firms (e.g. Mercedes Benz), CUT strongholds have also made real advances in worker rights, particularly in terms of central aspects of factory modernisation. Thus, at the broader level and in these strongholds ‘new unionism’ has continued its development path. However, in other areas and industries modernisation is a major challenge. Achieving real change in industrial relations in these more ‘typical’ contexts will be far more difficult. The case study locations, outside of São Bernardo, illustrated this.

The case studies of comprehensive modernisation encompassed examples of CUT radicalism, pragmatic ‘new unionism’ and traditional, bureaucratic but ‘modernised’ unions. While the *Mecânicos* were much slower to develop an active, broad and coherent identity than the Limeira union, the identities of these two CUT unions were shown to be broader, more participative and more democratic than *Sinditherme*. However, *Sinditherme* has been able to achieve a high level of unionisation by offering extensive social services. Furthermore, it has achieved this without having to be very representative or interested in either labour process concerns or explicit political strategies. Its identity is one of modernisation rhetoric and old style unionism - one which is conspicuous by its inactivity.

The ‘weight’ of history, an uncertain political economy and the regional display of authoritarian values by local employers have had very strong effects on the fortunes of these unions. In contrast to some recent Western literature, a culture of unions as a service provider or as some distant, non-workplace based, political actor is not a recent idea - it is firmly enshrined in Brazilian labour history. In this regard, all three unions have noted the difficulty they have gaining greater worker involvement in the union. Also, all see that the standardisation of conditions and vertical trade union relations are

distant issues in the 'eyes' of most workers.

However, state rules and local conditions have allowed *Sinditherme* officers to be comfortable and secure without much effort. In comparison, *Mecânico* unionists are desperately trying to keep to a more radical identity and find new ways, both structural and workplace based, to recapture and build their 'electorate'. The most illustrative and ironic situation for unionism exists at Rio Claro. There the union has very cleverly melded broader issues with local, plant based circumstances and found many new ways to be representative. The irony is that this has been very effective at every local metals factory except the one where employer policies are the most sophisticated, Brastemp-Rio Claro.

The methodology of this thesis enabled this research to take an even deeper look at these micro, subjective aspects of industrial relations. First, in terms of workers' overall views, modernisation may have reduced the importance of the state and increased the importance of the firm in the 'eyes' of most. Moreover, unionism is of little real significance to all but the most active unionist.

In this regard, workers' detailed impressions of their employer's approach to them have changed. In particular, workers at the comprehensively modernising firms are more firm orientated. Also, at these factories the semiskilled are not only treated better they are the most enthusiastic. However, the research also suggests that only some of these workers have shifted their allegiance to the employer. The others have been selected on the basis of their attitudes and affiliation. The modern employer in question is more interested in workers who show the right attitude and inclination. It is not unionism per se that threatens the employer but challenges from active unionists. Passive unionism may even be a positive indicator of interest in self-development - one which might be moulded to the employer's advantage.

Furthermore, the implicit bargain is not as clear cut or static as it first might appear. For example, while workers at the comprehensive firms felt that their employer had more interest in them and had given them a much better situation, they were still quite sceptical. They were prepared to work harder, faster and smarter and deliver low

turnover, high productivity results. However, what they felt they had gained and their expectations of the future at that employer were no greater than those of other workers. Moreover, they were most unhappy with promotional evaluation and were often just as sceptical about the reasons for their employer's policies as were workers from the partially modernised factories. However, they were less prepared to speak out.

Thus, while modernisation may have boosted work motivation, these results cast doubt on the degree to which employers have captured the 'hearts and minds' of workers and, in fact, on the use of words such as commitment and allegiance themselves. It may also give some unions hope that things may change. More broadly, workers' attitudes and their degree of attachment to either employer or union may vary, even by issue. Workers' demands appear to be very practical and instrumental. Neither false consciousness nor cultural dupe explanations appear to apply very well.

This brings the discussion to the specific nature of workers' views of their union and of unionism. First, the majority of Brazilian workers still don't have a very high level of attachment to their union. Yet this research has shown that (in some circumstances) when a union is more participative and acts to link its policies to practical local issues, workers will respond more wholeheartedly to both workplace and political themes. However, one principal caveat to this conclusion is when modernisation is carried out in a comprehensive fashion. In this case the combination of anti-union policies and employer persuasion will make it very difficult for a union to be both representative and successful. The case of Brastemp-Rio Claro clearly illustrates these problems for Brazilian unions. While Consul workers are much more unhappy with their union's approach, the solution employers there have engineered creates new problems for the original and more representative union (the *Mecânicos*).

Secondly, all workers except those at Brastemp-Rio Claro have a strong and largely unfilled desire for their union to be involved in labour process issues. Workers at Brastemp-Rio Claro saw the need for unions in general but not at their workplace. To survive, unions will have to take this issue very seriously. Thirdly, most workers did not favour the use of more explicit measures such as the strike. However, while a strike 'shy' feeling also emerged from responses given by active unionists, there was some

indication that if actions were clearly linked to practical themes greater strike support could be achieved.

Fourthly, as noted above, it must be of continuing concern to many union hierarchies that the degree of support for vertical union relations and political parties is low, even in key bastions of 'new unionism'. Modernisation and associated policies (i.e. 'greenfields' location) have aggravated these problems for local unions and their hierarchies. Many employers are still very anti-union and the geographical and bureaucratic division of union groups weakens the ability of unions to adequately cover workplaces and co-ordinate policies.

Fifthly, while some aspects of modernisation suggest that unions may need specific policies for particular skill groups this may alienate other workers and further divide the union's electoral base. This will be a difficult theme to resolve. Relatedly, greater variability in employment conditions across firms may make the standardisation of conditions increasingly irrelevant.

Finally, to look at this debate from a different angle, for modernisation to be an unconditionally positive issue for unions will require a very real change in employers' attitudes. It may also require the enshrinement of more high trust industrial relationships and compromises within a national industrial relations framework. In view of Brazilian labour history this scenario looks to be very optimistic. Major changes in attitudes and policy will require a very different level of trust to that which exists. However, experience also suggests that clear 'worker positive' changes to employers' policies will not usually come about unless unions are strong, independent and combative. In this sense, little real change appears to have occurred beyond the fact that employers' labour control and union exclusion policies are now more sophisticated.

#### Labour Process Theory and the 'Politics of Modernisation':

It is felt that the analysis of this thesis provides clear support for continuing studies of work based on the labour process and for labour process theory itself. Much

past literature on the labour process became bogged down due to disputes over political determinism, the focus of analysis and definitional issues. Few have argued with the need to sensitively integrate macro and micro themes and the importance of solid micro data. Yet few have provided this.

The further development of Burawoy's 'politics of production' seems to have surmounted many of these earlier disputes. By extending his analysis and by the use of a rich body of data on firms, unions and workers, this study has produced solidly grounded observations and allowed the links between micro and macro issues to be made. As a result of this study, industrial modernisation has been shown to be a less clear model and process than many writers have suggested.

On a practical level, there is always the risk that an approach based on the labour process could become either narrow and limiting or too broad and superficial. However, this thesis has shown the richness of experience that can be exposed by a study which guides a course in between these two extremes. On a more theoretical level, this study has shown that concepts such as control and allegiance are important for more than just semantic debate. Exploring the shades of grey between their common and more academic meanings highlights the value of this type of social science framework.

**APPENDIX A:**  
**THE BRAZILIAN WHITE GOODS INDUSTRY**

**Table A1: An Early Profile of the Brazilian White Goods Industry, Producers and Output (in units; % output change p.a.), 1955/56**

Product / Company	1955 output	1955 (% change on 1954)	1956 output	1956 (% change on 1955)
<b>Refrigeration</b>				
G. Motors	35,000	62%	45,200	29%
Brasmotor	21,000	0%	30,000	43%
P.Lopez (Climax)	30,000	20%	30,000	0%
G. Electric	20,000	100%	24,000	20%
Bercom	5,000	n.a.	10,000	100%
Maveroy (Kelvinator)	n.a.	n.a.	3,000	n.a.
Ibesa	12,000	0%	12,000	0%
Ind. de Refr.	3,000	50%	3,000	0%
Electrolux	n.a.	n.a.	n.a.	n.a.
Total:	125,000	36%	167,200	34%
<b>Clothes Washers:</b>				
Bendix	12,000	n.a.	17,500	46%
Servux	4,500	n.a.	7,000	56%
Cipan	3,200	n.a.	4,500	41%
Westingbraz *	n.a.	n.a.	n.a.	n.a.
P. Lopez (Climax)	2,000	n.a.	3,000	50%
Beringhs	n.a.	n.a.	2,500	n.a.
Ind. National	n.a.	n.a.	800	n.a.
Total:	22,000	n.a.	36,200	64%

**Source:** Derived from, H. Lima 'Industrias Novos no Brasil - Fabricação de Aparelhos Domésticos, *Observador Econômico Financeiro*, 8/58, 23, 270, pp32-38.

**Note:** \* While there are no figures available for Westingbraz (a Brazilian/Westinghouse venture) for 1955/6, they produced 20,000 washing machines in 1958. This represented 27% of total output of washing machines (75,000) in that year.

**Table A2: Production and Market Demand - Selected White Goods Products, 1985-92**

a) Refrigeration and Cooking Product Sales, 000's of units - % change p.a., 1985-92

Year	Fridges	Freezers	Stoves	Microwaves
1985	1689	-	-	27
1986	1963	-	-	70
% Change	16.2%	-	-	156.0%
1987	1907	-	-	90
% Change	-2.9%	-	-	27.9%
1988	1651	-	-	134
% Change	-13.4%	-	-	49.1%
1989	1931	589	2764	154
% Change	17.0%	-	-	14.9%
1990	1910	515	2222	216
% Change	-1.1%	-12.6%	-19.6%	39.9%
1991	2117	525	2570	155
% Change	10.8%	1.9%	15.7%	-28.1%
1992	1382	289	2385	306
% Change	-34.7%	-45.0%	-7.2%	97.4%

**Source:** B. Neto et al, 'A indústria de eletrodomésticos de linha branca: tendências internacionais e situação no Brasil', Institute of Economics, University of Campinas, Campinas, 1992, Table II.9, p96-97 and Table II.10, p101-102.

b) Washing Products - Market Demand, 000's of units - % change p.a., 1989-92

Year	Dish Washers	Clothing Dryer	Clothing Washers
1989	265.07	327.57	597.10
1990	228.50	309.50	518.10
% Change	-14.0%	- 5.5%	-13.2%
1991	187.48	405.12	544.05
% Change	-18.0%	31.0%	5.0%
1992	116.64	124.00	386.81
% Change	-38.0%	-69.0%	-29.0%

**Source:** Neto et al, 'Indústria ...linha branca', Table II.9, p96-97 and Table II.10, p101-102.

**Table A3: Market Structure - Selected White Goods Products, % of total production, 1985-92**

a) Refrigerators and Freezers, % of total market output by major producer groups, 1985-92

Year	Fridge			Freezer		
	Brasmotor	Refripar	Others	Brasmotor	Refripar	Others
1985	74.6%	24.0%	1.4%	48.1%	46.2%	5.7%
1986	72.6%	26.2%	1.2%	51.3%	42.0%	6.7%
1987	71.9%	26.3%	1.8%	51.6%	36.7%	11.7%
1988	70.9%	27.0%	2.3%	54.3%	38.7%	7.0%
1989	66.2%	32.0%	1.8%	46.1%	46.3%	7.6%
1990	61.0%	36.4%	2.6%	42.5%	52.0%	5.5%
1991	67.5%	30.0%	2.5%	45.5%	50.0%	4.5%
1992	71.0%	27.0%	2.0%	51.3%	44.0%	4.7%

**Sources:** Derived from, Neto et al 'Indústria..linha branca', Table II.13 p108. Additional material supplied by companies.

b) Washers and Dryers, % of total market output by major producer groups, 1989-92

Company / Year	1989	1990	1991	1992
<b>ENXUTA</b>				
- washers	28.07%	27.34%	25.03%	32.68%
- dish washers	47.69%	50.13%	59.03%	45.38%
- dryers	66.90%	72.18%	66.27%	57.57%
<b>BRASMOTOR:</b>				
<b>A) Brastemp</b>				
- washers	60.15%	62.06%	64.79%	55.29%
- dish washers	23.66%	27.09%	18.10%	34.17%
- dryers	18.20%	11.19%	8.0%	14.50%
<b>B) Semer</b>				
- dish washers	23.0%	18.05%	8.46%	5.53%
- dryers	4.85%	6.8%	0.10%	-
<b>REFRIPAR:</b>				
<b>A) Climax</b>				
- washers	11.78%	10.6%	10.18%	12.03%
- dryers	-	-	0.88%	-
<b>OTHERS:</b>				
- dish washers	5.65%	4.53%	14.34%	14.91%
- dryers	10.15%	9.83%	24.75%	27.93%

**Source:** Derived from, Neto et al 'Indústria .. linha branca', Table II.11.a p105, Table II.11.b p106 and Table II.11.c p106.

**APPENDIX B:**  
**THE CASE STUDY CONTEXT – INDICATORS**

**Table B1: Regional Labour Market Characteristics - São Paulo State and the Municipalities of São Bernardo and Rio Claro, 1980**

Characteristic / Region	São Paulo State	São Bernardo	Rio Claro
Population over 10	19.3 Million	0.325 Million	0.087 Million
Employment Rate	54%	55%	51%
% Employed in Manufacturing	30%	51%	26%
Manufacturing Labour Force - number employed - number unemployed	3.07 (M) 1.93 (M)	0.09 (M) 0.06 (M)	0.011(M) 0.007(M)
Manufacturing Empl. Rate	61.4%	59.6%	62.7%
Total Wage Distribution - 0-3 minimum salaries - 3+ minimum salaries	67.4% 32.6%	54.4% 45.6%	71.9% 28.1%
Manufacturing Workers-%m/f	75%-25%	N.A.	N.A.
Manufacturing/Construction Employment Proportions:			
- supervisors/technicians	3.3%	N.A.	N.A.
- metals occupations	23.5%		
- electricians	5.3%		
- other manufacturing jobs	15.7%		
Manufacturing Wage Distribution:			
- 0-3 minimum salaries	61.7%	N.A.	N.A.
- 3+ minimum salaries	38.3%		
Average age in Manufacturing	28.8 years	N.A.	N.A.

**Source:** Derived from, Instituto Brasileiro de Geografia e Estatística (IBGE), Censo Demografico, mão-de-obra. IX, Recenseamento Geral do Brasil, 1980, volume 1, various tomos.

**Table B2: Regional Labour Market Characteristics - Santa Catarina State and the Municipality of Joinville, 1980**

Characteristic / Region	Santa Catarina State	Joinville
Population over 10	2.72 million	0.177 million
Employment Rate	49.8%	55.0%
%Employed in Manufacturing	23.9%	52.8%
Manufacturing Labour Force: -number employed -number unemployed	0.319 million 0.212 million	0.0498 million 0.0295 million
Manufacturing Empl. Rate	60.1%	62.8%
Total Wage Distribution: -0-3 minimum salaries -3+ minimum salaries	79.6% 20.4%	75.8% 24.2%
Manufacturing workers -%m/f	73% - 27%	N.A.
Manufacturing/Construction Employment Proportions: - supervisors/technicians - metals occupations - electricians - other manufacturing jobs	1.9% 15.7% 3.8% 11.3%	N.A.
Manufacturing Wage Distribution: - 0-3 minimum salaries - 3+ minimum salaries	83.4% 16.6%	N.A.
Average age in Manufacturing	27.2 years	N.A.

**Source:** Derived from, IBGE, *Censo Demografico, mão-de-obra. IX, Recenseamento Geral do Brasil, 1980, volume 1, various tomos.*

**Table B3: Regional Labour Market Characteristics - Rio Grande do Sul State and the Municipality of Caxias do Sul, 1980**

Characteristic / Region	Rio Grande do Sul State	Caxias do Sul
Population over 10	6.1 million	0.176 million
Employment Rate	52.5%	58.5%
%Employed in Manufacturing	17.0%	43.0%
Manufacturing Labour Force: -number employed -number unemployed	0.55 million 0.30 million	0.044 million 0.019 million
Manufacturing Empl. Rate	64.5%	69.6%
Total Wage Distribution: -0-3 minimum salaries -3+ minimum salaries	77.2% 22.8%	72.7% 27.3%
Manufacturing workers -%m/f	70% - 30%	N.A.
Manufacturing/Construction Employment Proportions: - supervisors/technicians - metals occupations - electricians - other manufacturing jobs	2.5% 17.6% 4.6% 10.1%	N.A.
Manufacturing Wage Distribution: - 0-3 minimum salaries - 3+ minimum salaries	80% 20%	N.A.
Average age in Manufacturing	27.9 years	N.A.

**Source:** Derived from, IBGE, *Censo Demografico, mão-de-obra. IX, Recenseamento Geral do Brasil, 1980*, volume 1, various tomos.

**Table B4: Employment in São Paulo Manufacturing - Indexes of Hourly Worker Employment in Production, São Paulo State, July of each year, 1985-93 (base: average of 1985 = 100)**

Year	Industry Total	Metallurgy	Mechanical	Electrical
1985	101.15	99.08	99.34	102.12
1986	114.54	118.79	114.64	116.62
1987	112.28	111.01	112.51	125.55
1988	110.62	112.62	105.96	113.36
1989	113.57	107.82	107.50	112.59
1990	105.00	100.40	96.11	97.37
1991	97.93	92.87	88.06	90.43
1992	85.19	82.29	82.84	72.66
1993	85.53	83.61	77.57	75.01

Source: IBGE, Monthly Industrial Survey, 1985-94

**Table B5: Employment in Southern Region Manufacturing - Indexes of Hourly Worker Employment in Production, Southern Region (Parana, Santa Catarina and Rio Grande do Sul), July of each year, 1985-93 (base: average of 1985 = 100)**

Year	Industry Total	Metallurgy	Mechanical	Electrical
1985	99.22	96.18	97.00	102.31
1986	112.25	113.93	120.31	123.51
1987	103.85	126.71	110.20	127.99
1988	103.77	120.81	110.46	132.41
1989	107.77	128.02	116.17	139.71
1990	99.63	112.07	102.24	128.73
1991	92.33	103.95	92.14	112.57
1992	86.93	91.36	93.45	97.72
1993	86.87	98.24	98.86	89.01

Source: IBGE, Monthly Industrial Survey, 1985-94

**Table B6: Real Wages in São Paulo Manufacturing - Indexes of Real Wages of Production Workers, São Paulo State, 1985-93,(base: average of 1985 = 100)**

Year	Industry Total	Metallurgy	Mechanical	Electrical
1985	100	100	100	100
1986	111.7	104.9	111.3	109.6
1987	88.7	84.5	88.7	85.5
1988	96.4	95.2	100.5	96.2
1989	88.6	89.2	88.7	86.1
1990	35.3	34.9	35.6	35.5
1991	63.7	63.8	67.3	62.5
1992	72.3	71.9	78.7	71.2
1993	71.8	71.1	76.2	75.6

**Source:** Calculated using nominal wage index data from - IBGE, Monthly Industrial Survey, 1985-94; deflated by mean annual inflation estimates calculated from ICV inflation estimates.

**Table B7: Real Wages in Southern Region Manufacturing - Indexes of Real Wages of Production Workers, Southern Region (Parana, Santa Catarina, Rio Grande do Sul), 1985-93, (base: average of 1985 = 100)**

Year	Industry Total	Metallurgy	Mechanical	Electrical
1985	100	100	100	100
1986	114.0	119.5	111.4	109.5
1987	92.4	99.8	100.3	89.0
1988	95.3	104.8	104.7	97.4
1989	95.1	110.1	99.7	90.2
1990	38.6	47.2	39.0	34.6
1991	65.0	81.8	65.7	60.5
1992	70.9	89.0	69.6	80.8
1993	72.3	88.1	72.7	81.1

**Source:** Calculated using nominal wage index data from - IBGE, Monthly Industrial Survey, 1985-94; deflated by mean annual inflation estimates calculated from ICV inflation estimates.

**Table B8: Labour Turnover in Manufacturing - Annual Rates of Turnover for employees in Manufacturing; São Paulo State (SP), Santa Catarina State (SC) and Rio Grande do Sul State (RS); 1985-94**

Year	São Paulo	Santa Catarina	Rio Grande do Sul
1985	33.95%	32.70%	44.99%
1986	44.94%	45.87%	61.86%
1987	44.67%	43.77%	56.48%
1988	39.72%	44.54%	63.04%
1989	39.77%	44.21%	58.57%
1990	36.90%	36.20%	50.34%
1992	23.59%	24.10%	37.16%
1993	29.19%	29.21%	43.24%
1994	31.26%	34.62%	39.87%

**Source:** Calculated using data from - Ministry of Labour, Cadastro Geral de Empregados e Desempregados, (Lei 4923/65), 1985-95.

**Table B9: Indexes of the Cost of Living - Case Study Area Estimates, 1989 and 1992 (base: metropolitan region of São Paulo = 100)**

Area / Year:	1989	1992
Metropolitan São Paulo (SP)	100.00	100.00
Rio Claro (SP)	98.62	93.70
Joinville (SC)	102.19	101.74
Caixias do Sul (RS)	97.03	96.72

**Source:** Derived from regional price estimates shown in, DIEESE, Boletim DIESSE, 1988 - 93

**Notes:**

- 1) Index constructed after dividing the index of the cost of a basket of 13 food products in each of the regions (each year) by food expenditure proportions of total expenditures.
- 2) Proxy regions for food expenditure proportions - Caxias = Porto Alegre; Rio Claro = Metropolitan São Paulo; Joinville = Curitiba.
- 3) Proxy areas for 13 food product baskets/indexes - Caxias = Porto Alegre; Rio Claro = São Carlos; Joinville = Florianopolis.

**Table B10: Real Purchasing Power - Indexes of Relative Purchasing Power Change for Production Workers, the Case Study Locations, (base: 1989 = 100), 1989 and 1992**

Region / Year	1989	1992
São Bernardo:		
- metalurgy workers	100.0	80.6
- mechanical workers	100.0	88.7
Rio Claro:		
- metalurgy workers	100.0	84.6
- mechanical workers	100.0	93.4
Joinville:		
- metalurgy workers	100.0	81.2
- mechanical workers	100.0	70.1
Caxias:		
- metalurgy workers	100.0	81.1
- mechanical workers	100.0	70.0

**Source:** Calculated using the real wage indexes in Tables B6-7 and the cost of living indexes in Table B9.

## **APPENDIX C:**

### **Defining Skill within the Study**

Trying to define 'skill' raises a series of problematic issues. First, it can be seen to have both practical and conceptual elements. It will also depend on the attitude of the person involved and the judgements of others (e.g. employers and society) and thus has both subjective and objective sides. These issues are all very important and cannot be ignored.

However, for the practical purposes of a research project many of these questions can be dealt with by accepting that they will arise but with the focus put on 'levels of skill' as defined by the environment in question. Yet even within the apparently homogeneous context of four Brazilian white goods producers the approach used required some consideration. Key judgements made within this study are noted below.

First, many of the good recent Brazilian studies focus on the distinction between direct production line workers and those whose work is indirect. This approach avoids absolute definitions and often even the need to make relative comparisons of skill within and between factories. Moreover, its use helps to highlight the qualitative changes that have been observed in direct production work and the quantitative shift towards different proportions of direct production workers as firms streamline their production process. As there seems to be a strong relation between direct and unskilled work and indirect and semi-skilled work, this study often makes use of the direct/indirect categories. However, a more precise definition of skill was also called for as workers' responses on both objective and subjective themes were to be compared within and between factories.

An initial attempt to relate the occupations of each firm to national statistical skill categories proved to be unworkable. The approach decided on was to look at what occupations each firm considered to be skilled, semiskilled or unskilled and cross checking to make sure that no major discrepancies existed between firms. Where an occupation fits within the firm's (not the industry's) relative wage and occupational

structure was used as a key cross check of these categories. Also, in the vast majority of cases, when length of service was an issue this meant movement within the broad category only.

For most occupations this approach made classification a relatively easy issue (see Table C1 below for examples). If, for example, a company outsourced more or less than another or if its products required more or less complicated processes than others this was usually reflected in their proportions of each broad category, in the types of occupations within their skill groups and in the different specific tasks of similarly defined occupations. These became issues to be explained within the analysis.

**TABLE C1: SKILL CATEGORIES AND OCCUPATIONAL EXAMPLES**

SKILL CATEGORY	OCCUPATIONAL EXAMPLES
Skilled	tooling, modelling and design workers, mechanics, electricians, mechanical/ electrical / plastics / hydraulic maintenance workers, maintenance and tooling programmers, carpenters, stonemasons, prototype makers, electronic systems workers, locksmiths.
Semiskilled	most parts production machine operators, some maintenance and tooling assistants, most drivers of large and small scale machinery, quality controllers, part and equipment preparers, guards, general soldering and painting and production line co-ordinators.
Unskilled	basic line workers (parts and final product), part production assistant, simple materials movement, stock control and parts "suppliers", simplest parts production machine operators and cleaners.

**APPENDIX D:**  
**THE WORKER QUESTIONNAIRE AND SOCIO-ECONOMIC  
CHARACTERISTICS OF THE WORKER SAMPLE**

## THE WORKER QUESTIONNAIRE:

### A) GENERAL DATA:

- 1) Date of Birth
- 2) Sex
- 3) Date commenced at firm
- 4) Union member – sócio only / active also
- 5) Level of education on entering firm / now
- 6) Married or single / number of children
- 7) Where do you live / distance from factory
- 8) Industry/occupation of your mother/father
- 9) Present occupation/function in factory
- 10) Previous occupation in factory
- 11) Occupation in previous employer

### B) REFLECTIONS ABOUT WORK / WORKING CONDITIONS

- 1) Preferences for working conditions - hierarchy based on a shown list
- 2) How does your present employer rate on those (same) conditions – scale
- 3) How does your present employer rate on those (same) conditions compared to your previous employer – scale
- 4) What are your key problem areas with your present conditions/employer – hierarchy based on same list
- 5) Informally, have other tasks been added to your work since being at the firm
  - what / when / by whom / do you like them/ do they make work more interesting, easy, responsible, independent?
- 6) Formally, have you gained new tasks/qualifications/responsibilities/positions at the firm?
  - who decides on them / do you like the way such decisions are made/ are they adequately compensated?
- 7) Do you participate in decisions / make suggestions about – production, work and factory conditions?
  - how/ when / how frequently / what type / to whom / do you receive a good-positive reaction?
  - do these types of participation have any relation to your opportunities for progress/promotion in the firm?
- 8) Your work /job is now –
  - easier/ faster/ more intense / more monitored / more responsible / more interesting
  - uses more or new technologies and techniques?
  - is adequately paid / is adequately compensated overall
  - has more mobility/ independence/opportunity/perspectives for growth
- 9) Do you now – wish to receive new tasks/ wish to make more suggestions/ have more interest in development in your position at the firm?
- 10) Do you expect new responsibilities / promotion within the firm in the next 2 years?
  - where to / for what / depends on what and whom

- 11) How probable is it that you will voluntarily change employers in the next 2 years?
- why/ depends on what and whom/ to the same industry / in the same region
  - do you think you have more skills and thus are more mobile to other firms now?

C) REFLECTIONS ABOUT FACTORY RELATIONS:

- 1) How are positions/ opportunities decided at your factory?
  - formally or informally / who decides / what are the criteria used / decisions involve your cell / do you like-dislike this system?
- 2) When you have a problem / uncertainty in your work, do you try to resolve it yourself or do you speak to others? Who do you speak to?
- 3) Do your superiors/workmates have higher expectations that you should resolve problems yourself? Over what issues/problems? Whose expectations?
- 4) Compared to the past (2 years ago) and past employers – have you noticed that your employer is taking a new approach to – education / qualifications/ training / employee involvement / mobility to other positions?
- 5) Do you think that your employer has more interest in – you / your opinions / your suggestions / your career development – than previously and than other employers?
- 6) Is your supervisor here sympathetic/ helpful/ positive/ do they give you more opportunities? Has this changed since the past and past employers?
- 7) Do you know of your firms programmes for development / training / involvement and participation? What do they mean to you? Do you know what you need to do to gain promotion and new opportunities?
- 8) What have you gained from your present employment / employer?
- 9) What do you expect to gain from your present employment / employer?

D) REFLECTIONS ABOUT INDUSTRIAL RELATIONS:

- 1) Who has most power to determine your conditions of work / livelihood? – the state/employer/other
- 2) In whom do you have most confidence to resolve/provide for your conditions of work / livelihood?
- 3) Is your union a good body/organisation?
- 4) Does your union have policies and proposals? What are they? Are they good policies?
- 5) What does the union do for you? – inside and outside the factory
- 6) Should the union do something for you ?– inside and outside the factory
- 7) What should the union do for you – inside and outside the factory
- 8) Your union has policies or proposals concerning – list of issues (workplace related/wages and services/ strikes)
- 9) Do you agree with their policies? What types are appropriate and when should they use them?
- 10) Do you have sympathies with a union central or a political party?

**Table D1: Socio-Economic Characteristics of the Worker Sample [\*]**

	N	Sex %M	Union Type			Age in years	Service in Years
			NM	PM	AM		
1] Sample	93	72%	49	30	14	30.5	4.8
2] Firm							
RCL	25	80%	21	4	0	28.5	2.8
EN	20	45%	14	6	0	32.5	5.3
SB	25	88%	3	14	8	33.3	5.9
CII	17	71%	8	4	5	28.2	5.4
CIII	6	67%	3	2	1	26.3	5.5
CTOT	23	70%	11	6	6	27.7	5.4
3] Sex							
M	67	-	33	23	11	30.8	5.0
F	26	-	16	7	3	29.6	4.5
4] Unionist							
NM	49	67%	-			28.4	3.6
PM	30	77%	-			33.1	5.2
AM	14	79%	-			32.2	8.2
5] SKILL							
Skilled	23	96%	12	9	2	32.0	6.4
Semiskill	27	70%	11	12	4	32.4	5.0
Unskilled	43	60%	26	9	8	28.5	3.9
6] Section							
m/t	21	95%	11	9	1	32.1	5.7
plas	19	74%	11	6	2	32.1	3.9
met	13	85%	6	4	3	29.2	5.1
trans	18	56%	4	8	6	32.4	6.4
line	22	54%	17	3	2	26.6	3.3

**\* Table Key:**

N = number of respondents

Sex % M = percentage of group, male

NM = not a union member

PM = a passive union member

AM = an active union member

Section (of factory):

- m/t = maintenance/tool room
- plas = plastics
- met = metals
- trans = transport and materials movement
- line = assembly line

Firm:

RCL = Rio Claro

EN = Enxuta

SB = Brastemp-São Bernardo

CII/III = Consul II/III

CTOT = Consul Total

## BIBLIOGRAPHY

### 1) BOOKS, ARTICLES, CONFERENCE PAPERS AND DISSERTATIONS

- Abel C. and Lewis C.M.[1985] Latin America: Economic Imperialism and the State, London: ILAS/Athlone.
- Abramo L. [1990] 'Novas tecnologias, difusão setorial, emprego e trabalho no Brasil': um balanço, Boletim Informativo e Bibliográfico de ciências sociais, 30, Rio de Janeiro: ANPOCS/Vértice.
- " " [1988] 'A Subjectividade do Trabalhador Frente á Automação' in R. T. Neder et al, Automação e Movimento Sindical no Brasil, São Paulo: Hucitec.
- " " [1986] 'O Resgate da Dignidade (a greve de 78 em São Bernardo)', Masters Thesis, University of São Paulo.
- Abreu A. [1993] 'Mudança Tecnológica e Gênero no Brasil', Novos Estudos CEBRAP, 5.
- Ackers P., Smith C. and Smith P. [eds] [1996] The New Workplace and Trade Unionism, London and New York: Routledge.
- Ackroyd S., Burrell G., Hughes M. and Witaker A. [1988] 'The Japanization of British Industry', The Industrial Relations Journal, 19, 1.
- Aglietta M. [1979] A Theory of Capitalist Regulation, London: New Left Books.
- Almeida A.M. and Lowy M. [1976] 'Union structure and labor organization in the recent history of Brazil', Latin American Perspectives, Issue 8, 3/1.
- Almeida M. H. T. [1991] "Unions, economic crisis and high inflation: Brazil and Argentina in transition", Paper presented at the seminar 'Brazil: The Challenge of the 1990's', Institute of Latin American Studies, University of London, 31st Oct. - 1 Nov.
- " " et al [1989] 'Novo Sindicalismo and Politics in Brazil' in J. Wirth [ed] State and Society in Brazil: continuity and change, Boulder: Westview Press.
- " " [1988] 'Difícil caminho: sindicatos e política na construção da democracia', in F. W. Reis and G. O'Donnell [eds], A democracia no Brasil: dilemas e perspectivas, São Paulo: Vértice.
- " " [1985] 'Sindicalismo brasileiro e pacto social', Novos Estudos CEBRAP, 13.

- " [1983] 'Novos demandas, novos direitos: experiência do sindicalismo paulista na última década', Dados, 26, 3.
- " [1981] 'Tendências Recentes da Negociação Coletiva no Brasil', Dados, 24, 2.
- " [1975] 'O sindicato no Brasil: novos problemas, velhas estruturas', Debate e Crítica, 6.
- Altmann N. and Düll K. [1990] 'Rationalization and Participation: Implementation of New Technologies and Problems of the Works Councils in the FRG', Economic and Industrial Democracy, 2.
- Alves M. [1989] 'Trade Unions in Brazil: A Search for Autonomy and Organisation'; in E. Epstein [ed], Labour Autonomy and the State in Latin America, Boston: Unwin Hyman.
- " [1984] 'Grassroots organizations, trade unions and the church: a challenge to the controlled abertura in Brazil', Latin American Perspectives, Issue 40, 11/1.
- Amadeo E. and Camargo J. [1989] 'Política Salarial e negociações: perspectivas para o futuro', Discussion Text 11, Ministry of Labor, Brasília.
- Appelbaum E. and Batt R. [1994] The New American Workplace – Transforming Work Systems in the United States, New York: ILR Press.
- Anderson J. [1978] 'A Comparative Analysis of Local Union Democracy', Industrial Relations, Vol. 17, 3.
- Anglade C. and Fortin C. [1985;1989] The State and Capital Accumulation in Latin America, Vols. 1/2, Basingstoke: Macmillan.
- Antunes R. [1994] 'Recent Strikes in Brazil: The main tendencies of the strike movement of the 1980's', Latin American Perspectives, 21,1.
- " [1992] A Rebelião do Trabalho: Confronto operário no ABC Paulista - as greves de 1978/80, 2nd ed., Campinas: Editora da Unicamp.
- " [1991] O Novo Sindicalismo, São Paulo: Brasil Urgente.
- Aoki M. [1989] 'A New Paradigm of Work Organization and Co-ordination? Lessons from Japanese Experience' in S. Marglin and J. Schor (eds) The Golden Age of Capitalism, Oxford: Clarendon Press.
- Araújo A. and Tapia J. [1991] 'Corporativismo e Neocorporativismo: Exame de Duas Trajetórias', Boletim Informativo e Bibliografico de Ciências Sociais, 32, 2.

- Atkinson J. and Meager N. [1986] Flexible Firms, London: Institute of Manpower Studies.
- Baer W. [1989] The Brazilian Economy: Growth and Development, 3rd ed., New York: Praeger.
- Bamber G. and Lansbury R. [1989] 'Co-determination and Technological Change in the German Automobile Industry', in G. Bamber and R. Lansbury New Technology: International Perspectives on Human Resources and Industrial Relations, London: Unwin Hyman.
- Bandeira M. [1977] O Governo João Goulart: As Lutas Sociais no Brasil, 1961-64, Rio de Janeiro: Editora Civilização Brasileira.
- Barelli [1977] "O fundo de garantia e seu impacto no mercado de trabalho" conference paper for - 'Seminário sobre emprego e mercado do trabalho no Brasil', mimeograph, São Paulo: Secretaria de Economia e Planejamento and FUNDAP.
- Bassett P. [1987] Strike Free: New Industrial Relations in Britain, London: Macmillan.
- Beaumont P. [1992] 'Trade Unions and HRM', Industrial Relations Journal.
- Becker D. [1983] The New Bourgeoisie and the Limits of Dependency, Princeton: Princeton University Press.
- Belanger J., Edwards P. and Haiven L. [eds] [1994] Workplace Industrial Relations and the Global Challenge, Ithaca New York: ILR Press.
- Bemmel B. [1995] 'Dual Commitment: Unique Construct or Epiphenomenon?', Journal of Labor Research, 16, 4.
- Benevides M. V. [1976] O Governo Kubitschek: Desenvolvimento Econômico e Estabilidade Política, Rio de Janeiro: Paz e Terra.
- Bethell L. [ed] [1989] Cambridge History of Latin America-Brazil: Empire and Republic, 1822-1930, Cambridge: Cambridge University Press.
- Bergquist C. W. [1986] 'Modern Latin American Historiography and the Labour Movement'; in C. Bergquist [ed], Labour in Latin America, Stanford: Stanford University Press.
- Blyton P. and Turnbull P. [eds] [1996] Reassessing Human Resource Management, London: Sage.

- Boito A. [1994] 'The State and Trade Unionism in Brazil', Latin American Perspectives, 21,1.
- " " [1991] O Sindicalismo de Estado no Brasil, São Paulo: Editoras Hucitec/Unicamp.
- " " et al [1991] O Sindicalismo Brasileiro nos anos 80, Rio de Janeiro: Paz e Terra.
- Bordin M. [1986] 'The Brazilian Industrial Relations System (1930-64): Unionism or Corporatism?', Labour and Society, 11,1.
- Braverman H. [1974] Labour and Monopoly Capital, New York: Monthly Review Press.
- Bresiani L. [1995] "Reestruturação Productiva e Luta Sindical - o trabalho na indústria automobilística brasileira (1980-95)", paper for the seminar 'Estratégias de Lucha Sindical em America Latina', El Colegio de Mexico.
- " " [1991] 'Tecnologia, Organização do Trabalho e Ação Sindical - Da Resistência á Contratação', Masters Thesis, University of São Paulo.
- Bresiani L. and Oda N. [1995] 'Inovação Tecnológica, Mudança Organizacional e Negociação Coletiva: O Panaramo Brasileira e o Caso do Complexo Automotiva no ABC', in Caderno Tecnico – Reestruturação Produtiva no Brasil, 22, São Paulo: CNI/SESI.
- Burawoy M. [1985] The Politics of Production, London: Verso.
- " " [1983] 'Between the Labour Process and the State: The Changing Face of Factory Regimes Under Advanced Capitalism', American Sociological Review, 48, 5.
- Burns T. and Stalker G. [2nd ed., 1979] The Management of Innovation, London: Tavistock Publications.
- Caligiuri P. and Stroh L. [1995] 'Multinational corporation management strategies and international human resources practices: bringing IHRM to the bottom line', The International Journal of Human Resource Management, 6, 3.
- Cardoso F. H. and E. Faletto [1979] Dependency and Development in Latin America, Berkeley: University of California Press.
- Cardoso F. H. [1964] Empresário Industrial e Desenvolvimento Econômico no Brasil, São Paulo: Difusão Europeia do Livro.

- Carrière J. [ed] [1989] The State, Industrial Relations and the Labour Movement in Latin America, Vol. 1, Basingstoke: Macmillan.
- Carvalho J.M. [1982] 'Armed Forces and Politics in Brazil, 1930-45', Hispanic American Historical Review.
- Carvalho R. [1995] 'Coping with Change in the Economy: New Technologies, Organizational Innovation and Economies of Scale and Scope in the Brazilian Engineering Industry', Texto Para Discussão, Brasília: IPEA.
- " [1993] 'Programmable Automation and Employment Practices in Brazilian Industry', DPhil, University of Sussex.
- " [1992] "Projeto de Primeiro Mundo com Conhecimento e Trabalho do Terceiro?", paper presented to the seminar 'Trabalho e Educação', São Paulo: Fundação Carlos Chagas.
- " [1987] Technologia e Trabalho Industrial: As implicações sociais da automação microelectrônica na indústria automobilística, São Paulo/Porto Alegre: L & PM Editores.
- Carvalho R. and Schmitz H. [1989] 'Fordism is alive and well in Brazil', Institute of Development Studies Bulletin, 20,4.
- Castro N. [1994] "Crises and Economic Restructuring in Brazil: Effects on Labor and Industrial Organization", paper for 18th International Congress of the Latin American Studies Association, Atlanta.
- " [1993] 'Modernização e Trabalho no Complexo Automotivo Brasileiro - Restruturação Industrial ou Japanização de Ocasão?', Novos Estudos - CEBRAP, 37.
- Chadad J. P. [1990] 'Emprego e salários na administração pública brasileira: evidências da década de 80', Revista Brasileira de Economia, 44, 4.
- Chafee E. [1985] 'Three models of Strategy', Academy of Management Review, 10.
- Chandler A.D. and Daems H. (eds) [1980] Managerial Hierarchies, Cambridge Mass./ London: Harvard University Press.
- Child J. [1972] 'Organisational Structure, Environment and Performance: The Role of Strategic Choice', Sociology, Vol. 6/1.
- Cinquetti C. [1992] Acumulação de Capital na Crise das Dívidas: A Economia Brasileira no Ciclo 1981-1986, São Paulo: Bional.

- Clarke T. and Clements L. [eds] [1977] Trade Unions under Capitalism, Glasgow: Fontana.
- Clarke S. [1991] 'Crise do Fordismo ou Crise da Social-Democracia?', Lua Nova, 24.
- " " [1989] 'Overaccumulation, class struggle and the regulation approach', Capital and Class.
- Cohen Y. [1989] The Manipulation of Consent: The state and working class consciousness in Brazil, Pittsburgh: Pittsburg University Press.
- Coleman K. and Davis C. [1983] 'Preemptive reform and the working class', Latin American Research Review, 18,1.
- Collier D. [ed] [1979] The New Authoritarianism in Latin America, Princeton: Princeton University Press.
- Cook P. [1971] 'Robert Michels' Political Parties in Perspective', The Journal of Politics, 33.
- Cordova E. [1989] 'From Corporatism to liberalisation: The new directions of the Brazilian system of industrial relations', Labour and Society, 14,3.
- Coriat B. [1991] 'Du fordisme au Post-Fordisme' in B. Coriat [ed] Mutations Industrielles, Une Decennie de Modernisation Quels Modeles Socio-Productifs, Paris: CNRS.
- " " [1988 a] 'Regime de Acumulação e Relação Salarial no Brasil: Um processo de fordização forçada e contrariada', Ensaio FEE, 9, 2.
- " " [1988 b] 'Automação Programável: Novas Formas e Conceitos de Organização da Produção', in H. Schmitz and R. Carvalho [orgs] Automação, Competitividade e Trabalho: A Experiência Internacional, São Paulo: Hucitec.
- Coutinho L. [1992] 'A Terceira Revolução Industrial e Tecnológica', Economia e Sociedade, 1, August.
- Cowling K. [1982] Monopoly Capitalism, London: Macmillan.
- Crosby P. [1979] Quality is Free, New York: MacGraw Hill.
- Crouch C. [1982] Trade Unions: The Logic of Collective Action, London: Fontana.
- Crozier M. [1964] The Bureaucratic Phenomenon, Chicago: University of Chicago Press.

- Dankbaar B. [1988] 'New Production Concepts, Management Strategies and the Quality of Work', Work, Employment and Society, vol. 2, 1.
- Davis C. and Coleman K. [1986] 'Labor and the State: Union Incorporation and Working Class Politicization in Latin America', Comparative Political Studies, 18, 4.
- Dawson P. and Webb J. [1989] 'New Production Arrangements: The Totally Flexible Cage?', Work, Employment and Society, 3, 2.
- Dedoussis V. [1995] 'Simply a Question of Cultural Barriers?: The Search for New Perspectives in the Transfer of Management Practices', Journal of Management Studies – Special Issue, 32, 6.
- Deery S., Iverson R. and Erwin P. [1994] 'Predicting Organizational and Union Commitment: The Effect of Industrial Relations Climate', British Journal of Industrial Relations, 32, 4.
- Delbridge R. [1995] 'Surviving JIT: Control and Resistance in a Japanese Transplant', Journal of Management Studies – Special Issue, 32, 6.
- Delbridge R., Turnbull P. and Wilkinson B. [1992] 'Pushing back the frontiers: management control and work intensification under JIT/TQM factory regimes', New Technology, Work and Employment, Vol. 7, 2.
- Deming W. E. [1986] Out of the Crisis, Cambridge Mass.: MIT Press.
- Dickson T., McLachlan H., Prior P. and Swales K. [1988] 'Big Blue and the Unions: IBM, Individualism and Trade Union Strategy', Work, Employment and Society, Vol. 2,4.
- Doeringer P. and Piore M. [1971/1985] Internal Labour Markets and Manpower Analysis, Lexington: Heath Lexington Books.
- Dohse K. et al [ 1985] 'From "Fordism" to "Toyotism"? The social organisation of the labour process in the Japanese automobile industry', Politics and Society, 14, 2.
- Dore R. [1973] British Factory - Japanese Factory, London: George Allen and Unwin.
- Driver C. [1981] 'A Theory of Capitalist Regulation: The US Experience - Review Article', Capital and Class, 13.
- Dunlop J. [1958] Industrial Relations Systems, New York: Reinhart and Winston.

- Dunn S. [1990] 'Root Metaphor in the Old and New Industrial Relations', British Journal of Industrial Relations, March.
- Durkheim E. [1984] The Division of Labour in Society, transl. W. D. Halls, London: Macmillan.
- Dutra E. and Grossi Y. [1986] 'Historiografia e Movimento Operário: O Novo em Questão', Revista do Departamento de História, UFMG, 3.
- Dutra O. et al. [1984] 'CUT versus CONCLAT: os contornos das diferenças', Ensaio, 13.
- Edelstein J. and Warner M. [1979] Comparative Union Democracy, New Jersey: Transaction Inc.
- Edwards P. [1992] 'Industrial Conflict: Themes and Issues in Recent Research' British Journal of Industrial Relations, 30, 3.
- Edwards R. [1979] Contested Terrain, London: Heinemann.
- Edwards R., Reich M. and Gordon D. [1975] Labour Market Segmentation, Lexington: Lexington Books.
- Elgar T. and Smith C. [eds] [1994] Global Japanization? - The transnational transformation of the labour process, London and New York: Routledge.
- Erickson K. [1985] 'Brazil: Corporative Authoritarianism, Democratization, and Dependency', in H. J. Wiarda and H.F. Kline [eds], Latin American Politics and Development, Boulder and London: Westview Press.
- " " [1977] The Brazilian Corporative State and Working Class Politics, Berkeley: University of California Press.
- Erickson K., Peppe P. and Spalding H. [1980] 'Dependency vs. Working Class History: A false contradiction?', Latin American Research Review, 15,1.
- Evans P. [1979] Dependent Development: The Alliance of Multinational, State and Local Capital in Brazil, Princeton: Princeton University Press.
- Fausto B. [1976] Trabalho Urbano e conflito industrial, São Paulo: Difusão Européia do Livro.
- Felix D. [1983] 'Income Distribution and the Quality of Life in Latin America', Latin American Research Review, Vol. 18/3.

- Ferner A. [1994] 'Multinational Companies and Human Resource Management: An Overview of Research Issues', Human Resource Management Journal, 4, 2.
- Ferraz J. et al [1992] Development Technology and Flexibility: Brazil Faces the Industrial Divide, London/New York: Routledge.
- Ferreira C. et al [1991] "Alternativas Sueca, Italiana e Japonesa ao Paradigma Fordista: Elementos para uma Discussão sobre o caso Brasileiro" paper to interdisciplinary seminar 'Modelos de Organização Industrial, Política Industrial e Trabalho', São Paulo: ABET.
- Ferreira C. [1978] 'Intervenções sindicais e o novo sindicalismo', Dados, 17.
- Fincham R. and Rhodes P. [1992] The Individual, Work and Organization, 2nd ed., London: Weidenfield and Nicholson.
- Fisher J. [1995] 'The Trade Union Response to HRM in the UK: The Case of the TGWU', Human Resource Management Journal, Vol. 5, 3.
- Fleury A. and Humphrey J. [1993] 'Human Resources and the Diffusion and Adaptation of New Quality Methods in Brazil', IDS Research Report, no. 24.
- Fleury A. [1991] 'Flexible Automation in Brazil', in S. Watanabe ed., Microelectronics in 3rd World Countries: Quality, Competition, International Development of Labour and Employment, ILO, Geneva
- " [1989] 'Automação na Indústria Metal-mecânica: Tendências da Organização do Trabalho e da Produção' in J.Fischer [ed], Anais do Seminário Padrões Tecnológicos e Políticas de Gestão: Processos de Trabalho na Indústria Brasileira, São Paulo: CODAC/USP.
- " [1988a] 'Análise a Nível de Empresa dos Impactos da Microeletrônica sobre a Organização da Produção e do Trabalho', Professorial Thesis, Escola Politécnica, University of São Paulo.
- " [1988b] 'Micoelectrônica e Organização da Produção e do Trabalho na Empresa', São Paulo em Perspectiva, 2, 3.
- " [1985] 'Organização do Trabalho na Indústria: Recolocando a questão nos anos 80', in A. Fleury and R. Fisher [orgs], Processo e Relacoes do Trabalho, São Paulo: Atlas.
- " [1983] 'Rotinização do Trabalho: O Caso das Indústrias Mecânicas' in A. Fleury and N. Vargas [eds], Organização do Trabalho, São Paulo: Atlas.

- Fleury A. and Vargas N. [orgs] et al [1987] Organização do Trabalho - an interdisciplinary treatment of seven Brazilian case studies, São Paulo: Atlas.
- Fleury M. [1993] 'The Culture of Quality and the Management of Human Resources', IDS Bulletin, vol. 24, 2.
- Flynn P. [1986] 'Brazil: the politics of the Crusado Plan', Third World Quarterly.
- " " [1974] 'Brazil: authoritarianism and class control', Journal of Latin American Studies, Vol.6.
- Foot F. and Leonardi V. [1982] História da Indústria e do Trabalho no Brasil, São Paulo: Global.
- Fosh P. and Heery E. [eds] [1990] Trade Unions and their members: studies in union democracy and organization, London: Macmillan.
- Fox J. [1980] 'Has Brazil Moved Towards State Capitalism?', Latin American Perspectives, 24, 7, 1.
- Franzoi N. and Rodrigues M. [1993] 'Beyond Quality', IDS Bulletin – Quality and Productivity in Industry: New Strategies in Developing Countries, 24, 2.
- Frederico C. [1990/91] A Esquerda e o Movimento Operária, 1964-84, Vols. 2 & 3, São Paulo: Oficina de Livros.
- " " [1979] A Vanguarda Operária, São Paulo: Editora Símbolo.
- " " [1979] Consciência Operária no Brasil - Estudo com um grupo de trabalhadores, 2nd ed., São Paulo: Editora Ática.
- Freeman R. and Medolff J. [1984] What do Unions do?, New York: Basic books.
- Freire P.[1980] Multinacionais e Trabalhadores no Brasil, 3rd ed., São Paulo: Brasiliense.
- French J. [1992] The Brazilian Workers ABC: class conflict and alliances in modern São Paulo, Chapel Hill: University of North Carolina Press.
- " " [1989] 'Industrial workers and the birth of the Populist republic 1945-46', Latin American Perspectives, 16, 4.
- Friedman A. [1990] 'Strawmania and Beyond. The Development of Labour Process Analysis and Critique', Eighth Annual Labour Process Conference, Birmingham, Mimeo.

- " [1977] Industry and Labour: Class Struggle at Work and Monopoly Capitalism, London: Macmillan.
- Füchtner H. [1980] Os Sindicatos Brasileiros - Organização e Função Política, Rio de Janeiro: Graal.
- Furtado C. [1992 a] Brasil - a construção interrompida, 2nd ed., Rio de Janeiro: Paz e Terra.
- " [1992 b] 'O Subdesenvolvimento Revisitado', Economia e Sociedade, 1, August.
- Gallie D. [1991] 'Patterns of Skill Change: Upskilling, Deskilling or the Polarization of Skills?', Work, Employment and Society, 5, 3.
- " [1978] In search of the new working class - Automation and social integration within the capitalist enterprise, Cambridge: Cambridge University Press.
- Garrahan P. and Stewart P. [1992] 'Work Organisations in Transition: The Human Resource Management Implications of the "Nissan Way"', Human Resource Management Journal, 2, 2.
- Gaudier M. [1988] 'Workers' participation within the new industrial order: A review of literature', Labour and Society, 13, 2.
- George K. and Shorey J. [1985] 'Manual Workers, Good Jobs and Structured Internal Labour Markets', British Journal of Industrial Relations, 23, 3.
- Gereffi G. and Evans P. [1981] 'Transnational Corporations, Dependent Development and State Policy in the Semi-Periphery: A Comparison of Brazil and Mexico', Latin American Research Review, vol.16.
- Gerschenkron A. [1962] Economic Backwardness in Historical Perspective, Harvard: Harvard University Press.
- Giddens A. [1979] Central Problems in Social Theory, London: Macmillan.
- Gitahy L. [org] et al [1994] Reestructuración Productiva, Trabajo y Educación en America Latina, Campinas: CENEP /OIT /UNICAMP /UNESCO.
- Gitahy L. and Rabelo F. [1991] 'Educação e Desenvolvimento Tecnológico: O caso da indústria de auto-peças', Textos Para Discussão, 11, UNICAMP, Campinas.
- Goldthorpe J. [ed] [1984] Order and Conflict in Contemporary Capitalism, Oxford: Oxford University Press.

- Gomes A. [org] et al [1991] O Brasil de JK, Rio de Janeiro: FGV.
- Gomes G. [1986] The Roots of State Intervention in the Brazilian Economy, New York and London: Praeger.
- Gonçalves J. [1985] Mão-de-obra e condições de trabalho na indústria automobilística do Brasil, São Paulo: Editora Hucitec.
- Gonçalves J. and Dreyfus C. [coords] [1995] Reengenharia das Empresas - Passando a limpo, São Paulo: Atlas.
- Graham L. [1994] 'How does the Japanese Model transfer to the United States?: A view from the line', in T.Elgar and C.Smith [eds], Global Japanization?: The Transnational Transformation of the Labour Process, London: Routledge.
- Greenfield G. [1987] 'Brazil', in G. Greenfield and S. Maram [eds], Latin American Labour Organizations, New York: Greenwood Press.
- Guest D. (1987) 'Human Resource Management and Industrial Relations', Journal of Management Studies, 24, 5.
- Guest D., Peccei R. and Thomas A. [1993] 'The impact of employee involvement on organizational commitment and 'us and them' attitudes', Industrial Relations Journal, 24, 3.
- Guest D. and Dewe P. [1991] 'Company or Trade Union: Which wins worker allegiance?', British Journal of Industrial Relations, 29, 1.
- " " [1988] 'Why do workers belong to a trade union?', British Journal of Industrial Relations, 26, 2.
- Guimarães A. and Castro N. [1990] 'Trabalho, Sindicalismo e Reconversão Industrial no Brasil nos anos 90', São Paulo em Perspectiva, 4, 2.
- Handelman H. [1977] 'Oligarchy and democracy in two Mexican labor unions: a test of representation theory', Industrial and Labor Relations Review, 30, 2.
- Harrison G. [1986] 'Trade Unions and Labour Management: A Brazilian Case Study', Ph.D Thesis, Department of Sociology, University of Manchester.
- Hartley J. and Kelly J. [1986] 'Psychology and Industrial Relations: From conflict to cooperation?', Journal of Occupational Psychology, 59.

- Hayes R. and Pisano G. [1994] 'Beyond World Class: The New Manufacturing Strategy', Harvard Business Review, Jan-Feb.
- Hill S. [1991] 'Why Quality Circles Failed but Total Quality Mangement Might Succeed', British Journal of Industrial Relations, 29, 4.
- " " [1986] Competition and Control at Work, Aldershot: Gower.
- Hill S. and Thurley K. [1974] 'Sociology and Industrial Relations', British Journal of Industrial Relations, July.
- Hirate H. (org) [1993] Sobre o "Modelo" Japonês - Automatizaço, Novos Formas de Organização e de Relações de Trabalho, São Paulo: EDUSP/Alíancia Cultural Brasil-Japão.
- " " [1992] "Da Polarização das Qualificações ao Modelo da Competencia: A evolução do debate no contexto dos novos paradigms de organização indústrial", paper for simposium 'Inovações tecnológicas, novos padrões de organização do trabalho e a qualificação do mão-de-obra', São Paulo, August.
- " " [1983] 'Recitas Japonesas, realidade Brasileira', Novos Estudos – CEBRAP, 2.
- Hirsch B. and Addison J. [1986] The Economic Analysis of Unions: new approaches and evidence, London: Unwin Hyman.
- Hirst P. and Zeitlin J. [1991] 'Flexible Specialization Versus Post-Fordism: Theory, Evidence and Policy Implications', Economy and Society, Vol. 20, 1.
- Hoogevelt A.M.M. [1987] The Third World in Global Development, London: Macmillan.
- Humphrey J. [1995] 'The Adoption of Japanese Management Techniques in Brazilian Industry', Journal of Management Studies- Special Issue, Vol. 32, 6.
- " " [1994] "Japanese" Production Methods and the Changing Position of Direct Production Workers: Evidence from Brazil' in T.Elgar and C.Smith [eds], Global Japanization – The Transnational Transformation of the Labour Process, London: Routledge.
- " " [1993 a] 'Japanese Production Management and Labour Relations in Brazil' Journal of Development Studies, 30, 1.

- " [ed] [1993 b] 'Quality and Productivity in Industry: New Strategies in Developing Countries', Institute of Development Studies Bulletin, Vol. 24, 2.
- " [1993c] 'Adaptando o "Modelo Japonês" no Brasil', in H.Hirate [org], Sobre o Modelo Japonês, São Paulo: EDUSP/Aliancia Cultural Brasil-Japão.
- " [1992] "New Production Methods and Labour Flexibility in Brazil", conference paper for 'Transformacion Industrial-Productiva y Relaciones Industriales', Puebla, Mexico.
- " [1982] Capitalist Control and Workers' Struggle in the Brazilian Auto Industry, Princeton: Princeton University Press.
- " [1980 a] 'As Raizes e os Desafios do "Novo" Sindicalismo da Indústria Automobilística', Estudos CEBRAP, No. 26.
- " [1980 b] 'Labour Use and Control in the Brazilian Automobile Industry', Capital and Class, 12.
- " [1979] 'Auto Workers and the Working Class in Brazil', Latin American Perspectives, 23, 6, 4.
- Hyman R. [1991] 'European Unions: towards 2000', Work, Employment and Society, 5, 4.
- " [1986] Industrial Relations: a Marxist introduction, Oxford: Basil Blackwell.
- " [1977] Strikes, 2nd ed., London: Fontana.
- Hyman R. and Ferner A. [eds] [1994] New Frontiers in European Industrial Relations, Oxford: Blackwell.
- Hyman R. and Streeck W. [eds] [1988] New Technology and Industrial Relations, Oxford: Basil Blackwell.
- Infante R. and Klein E. [1991] 'The Latin American Labour Market, 1950-1990', CEPAL Review, 45.
- James D. [1981] 'Rationalization and Working Class Responses: The Context and Limits of Factory Floor Activity in Argentina', Journal of Latin American Studies, Vol 13, 2.
- Jenkins R. [1984] 'Transnational Corporations and Labour'; in R. Jenkins [ed], TNCs and Industrial Transformation in Latin America, London.

- Jermier J., Knights D. and Norn W. [eds] [1993] Resistance and Power in Organizations, London: Routledge.
- Kane E. and Marsden D. [1988] 'The future of trade unionism in industrialized market economies', Labour and Society, 13, 2.
- Kaplinsky R. [1988] 'Restructuring the capitalist labour process: some lessons from the car industry', Cambridge Journal of Economics, 12.
- Keck M. E. [1992] The Workers' Party and Democratization in Brazil, New Haven: Yale University Press.
- " " [1989] 'The New Unionism in the Brazilian Transition'; in A. Stepan [ed], Democratising Brazil: problems of transition and consolidation, New York: Oxford University Press.
- " " [1984] 'Update on the Brazilian labor movement', Latin American Perspectives, Issue 40, 11/1.
- Kelloway E., Catano V. and Southwell R. [1992] 'The construct validity of union commitment: Development and dimensionality of a shorter scale', Journal of Occupational and Organizational Psychology, 65.
- Kelly C. and Kelly J. [1994] 'Who gets involved in collective action?: Social and Psychological Determinants of Individual Participation in Trade Unions', Human Relations, 47, 1.
- Kelly J. and Kelly C. [1991] 'Them and Us: Social psychology and the "new industrial relations" ', Journal of Industrial Relations, 29, 1.
- Kelly J. [1988] Trade Unions and Socialist Politics, London: Verso.
- " " [1982] Scientific Management, Job Redesign and Work Performance, New York: Academic Press.
- Kelly J. and Nicholson N. [1980] 'The Causation of Strikes: A Review of Theoretical Approaches and the Potential Contribution of Social Psychology', Human Relations, Vol. 33, 12.
- Kenney M. and Florida R. [1995] 'The Transfer of Japanese Management Styles in Two US Transplant Industries: Autos and Electronics', Journal of Management Studies – Special Issue, 32, 6.
- Kern H. and Schumann M. [1984] The End of the Division of Labour?, Munich: Beck.

- Kerr C. and Staudohar P. [eds] [1994] Labor Economics and Industrial Relations: Markets and Institutions, Cambridge Mass. and London: Wertheim.
- Kesler G. [1995] 'A Model and Process for Redesigning the HRM role, Competencies and Work in a Major Multi-national Corporation', Human Resource Management, 34, 2.
- Kirschner T. C. [org] [1993] 'Modernização Tecnológica e Formação Técnico-Profissional no Brasil: Impasses e Desafios', IPEA - Discussion Text, 295.
- Kissler L. [1992] "Modernização Industrial através da Participação dos Trabalhadores?", paper for the seminar 'Novas Formas de Gestão para a Qualidade e Produtividade', Brasília: IPEA.
- Knights D. and Willmott H. [eds] [1993] Making Quality Critical - New Perspectives on the Labour Process, London: Routledge.
- " " [eds] [1989] Labour Process Theory, London: Macmillan.
- " " [eds] [1988] New Technology and the Labour Process, Basingstoke: Macmillan.
- " " [eds] [1986] Managing the Labour Process, Aldershot: Gower.
- Knights D. et al [1985] Job Redesign, Aldershot: Gower.
- Kochan T. [1988] 'The future of worker representation: An American perspective', Labour and Society, 13, 2.
- Kochan T. and Osterman P. [1994] The Mutual Gains Enterprise, Boston: Harvard Business School Press.
- Korpi W. and Shalev M. [1979] 'Strikes, Industrial Relations and Class Conflict in Capitalist Societies', British Journal of Sociology, vol. 30, 2.
- Kowarick L. [ed] [1994] Social Struggles and the City: The Case of São Paulo, New York: Monthly Review Press.
- Kucinski B. [1982] Abertura, a história de uma crise, São Paulo: Brasil Debates.
- Kuenzer A. et al [1992] Trabalho e Educação, Campinas: Papirus.
- Laclau E. [1971] 'Feudalism and Capitalism in Latin America', New Left Review, vol. 67.

- Lall S. [1975] 'Is Dependence a useful concept in analysing underdevelopment?', World Development, Vol. 3/11-12.
- Lane C. [1989] Management and Labour in Europe, Aldershot: Edward Elgar.
- " " [1988] 'Industrial Change in Europe: the pursuit of flexible specialization in Britain and West Germany', Work, Employment and Society, 2, 2.
- Lash S. and Urry J. [1987] The End of Organized Capitalism, Cambridge: Polity Press.
- Leidke E. [1992] 'Inovação Tecnológica e Ação Sindical nas Indústrias Metal-mecânica e Eletrônica no Rio Grande do Sul', Revista Educação e Sociedade, 41.
- Leite E. [1993a] 'Uma "Escola" em cada Empresa?' paper to seminar "Reestruturação Productiva, Organização do Trabalho e Relações Indústrias no Brasil", São Paulo: CEBRAP.
- " " [1993b] 'Trabalho e Qualificação: a classe operária vai à escola', Cambio Tecnológico, Calificacao y Capacitacao, I Reunião do GT, Red Latinamericana de Educacion y Trabajo, Campinas.
- " " [1989a] 'Inovação Tecnológica, Emprego e Qualificação: Um Estudo Sobre os Impactos da MFCN em Indústrias de Bens de Capital', Masters Thesis, University of São Paulo.
- " " [1989b] 'Inovação Tecnológico, Emprego e Qualificação na Indústria Mecânica' in J.Fischer [ed], Anais do Seminário Padrões Tecnológicos e Políticas de Gestão: Processos de Trabalho na Indústria Brasileira, São Paulo: CODAC/USP.
- Leite M. [1994a] O Futuro do Trabalho: Novas Tecnologias e Subjectividade Operária, São Paulo: Pagina Aberta.
- " " [1994b] 'Reestruturação Productiva, Novos Tecnologias e Novas Formas de Gestão da Mão-de-Obra' in J. Mattoso et al [orgs] O Mundo do Trabalho - Crise e Mudança no Final do Século, São Paulo: Scritta
- " " [1993a] 'Innovación Tecnológica, Organización del Trabajo y Relaciones Industriales en el Brasil', Revista Nueva Sociedad, 124.
- " " [1993b] 'Novas formas de gestão da mão-de-obra e sistemas participativos: uma tendencia a democratização das relações de trabalho?', paper to ANPOCS conference, Caxambu: ANPOCS

- " " [1990] 'A vivencia operaria da automação microelectrônica', PhD Thesis, University of São Paulo.
- Leite M. and Silva R. [orgs.] [1991] Modernização Tecnológica: Relações de Trabalho e Práticas de Resistência, São Paulo: Iglu Editora.
- Levine R. [1981] 'Urban Workers Under the Brazilian Republic, 1899-1937', paper for the Institute of Latin American Studies, Glasgow.
- Lichenstein N. and Meyer S. [eds] [1989] On the Assembly Line - Essays in the History of Auto Work, Chicago: University of Illinois Press.
- Liedke E. [1991] "Inovação Tecnológica e Ação Sindical nas Indústrias Metal-Mecânica e Eletro-Eletrônica no Rio Grande do Sul", paper for latinamerican seminar 'Modernização Tecnológica e Trabalho: Perspectivas para o setor Metalúrgico', São Paulo: LABOR/FE-UNICAMP.
- " " [1988] "Diferenciação da Força de Trabalho na Empresa - Um Estudo de Caso na Indústria Eletrônica" paper for ANPOCS, Água de S. Pedro.
- Liemt G. [ed] [1992] Industry on the move, Geneva: ILO.
- Lima H. F. [1958] 'Indústrias Novas no Brasil: Fabricação de Aparelos Domésticos', Revista Observador Econômico Financeiro, 23, 270, 8/58.
- Lima I. [1989] 'Análise das consequências da utilização das filosofias e técnicas japonesas da gestão da produção o rendimento das empresas', MA dissertation, Federal University of Rio Grande do Sul.
- Lincoln J. and Kalenberg A. [1989] Culture, Control and Commitment: A study of work organization and work attitudes in the US and Japan, Cambridge: Cambridge University Press.
- Lipietz A. [1982] 'Towards Global Fordism?' New Left Review, 132.
- Little C. R. [1982] The Development of the Labour Process in Capitalist Societies, London: Heinemann.
- Lopes J. R. B. [1964] Sociedade Industrial no Brasil, São Paulo: Difusão Européia do Livro.
- Lowy M. [1987] 'A new type of party: The Brazilian PT', Latin American Perspectives, Issue 55, 14,4.
- Lukes S. [1977] Power - a Radical View, 3rd ed., London: Macmillan.

- Machado L. R. [1989] Educação e Divisão Social do Trabalho, 2nd ed., São Paulo: Cortez.
- Mahon R. [1987] 'From Fordism to ?: New Technology, Labour Markets and Unions', Economic and Industrial Democracy, Vol. 8.
- Malan P. and Bonelli R. [1977] 'The Brazilian Economy in the 1970's: Old and New Developments', World Development, 5, 1-2.
- Malloy J. [1979] The Politics of Social Security in Brazil, Pittsburgh: University of Pittsburgh Press.
- Mangabeira W. [1991] 'Union Politics and workplace militancy: a case study of Brazilian steelworkers in the 1980's', Ph.D Thesis, London School of Economics, University of London.
- Manwaring T. and Wood S. [1985] 'The Ghost in the Labour Process', in D. Knights et al Job Redesign, Aldershot: Gower.
- Marginson P., Armstrong P., Edwards P. and Purcell J. [1995] 'Extending beyond borders: Multinational companies and the international management of labour', The International Journal of Human Resource Management, 6, 3.
- Marques M. S. [1985] 'A aceleração inflacionária no Brasil: 1973-83', Revista Brasileiro de Economia, 39, 4.
- Martin R. [1968] 'Union Democracy: An Explanatory Framework', Sociology, 2 2.
- Martins H. [1979] O Estado e a Burocratização do Sindicato no Brasil, São Paulo: Hucitec.
- Mattoso J., Neto J., Oliveira C., Oliveira J. and Pochmann M. [orgs] et al [1994] O Mundo do Trabalho - Crise e Mudança no Final do Século, São Paulo: SCRITTA/Pagina Aberta.
- McCarthy W. E. J. [1987] Trade Unions, 2nd ed., Harmondsworth: Penguin.
- Mericle K. [1977] 'Corporatist Control of the Working Class: Authoritarian Brazil since 1964', in J. Maloy [ed] Authoritarianism and Corporatism in Latin America, Pittsburgh: University of Pittsburgh Press.
- " " [1974] 'Conflict Resolution in the Brazilian Industrial Relations System', Phd Thesis, University of Wisconsin.
- Mesa-Lago C. [1986] 'Social security and development in Latin America', Cepal Review, Vol. 28.

- Michels R. [1959] Political Parties ..., 1st ed. 1915, New York: Dover.
- Middlebrook K. [1989 a] 'Union democratization in the Mexican Auto Industry', Latin American Research Review, 24, 2.
- " " [1989 b] 'The Sounds of Silence: Organized Labour's Response to Economic Crises in Mexico', Journal of Latin American Studies, 21.
- " " [1982] 'International implications of labour change: The Automobile Industry' in J. Domingues [ed] Mexicos Political Economy, Beverly Hills: Sage Publications
- Milne A. A. [1991] The Pooh Book of Quotations, compiled by B. Sibley, New York: Dutton.
- Mishel L. and Voos P. [eds] [1992] Unions and Economic Competitiveness, New York and London: Sharpe.
- Moisés J. [1993] 'Elections, Political Parties and Political Culture in Brazil: Changes and continuities', Journal of Latin American Studies, 25.
- " " [1982] 'What is the strategy of the new syndicalism?', Latin American Perspectives, Issue 35, 9,4.
- " " [1979] 'Current Issues in the labor movement in Brazil', Latin American Perspectives, Issue 23, 6, 4.
- " " [1978] 'Problemas atuais do movimento operário no Brasil', Revista de Cultura Contemporânea, 1.
- Morais J. [1992] "'New Unionism" and Union Politics in Pernambuco (Brazil) in the 1980's', PhD Thesis, University of London.
- Morris J. and Wilkinson B. (eds) [1995] 'The Transfer of Japanese Management to Alien Institutional Environments' Journal of Management Studies – Special Issue, Vol. 32, 6.
- Mottaz C. [1988] 'Determinants of Organizational Commitment', Human Relations, 41, 6.
- Mouzelis N. [1990] 'Sociology of Development: Reflections on the Present Crisis', Sociology, February.
- Nachman R. [1977] 'Positivism, Modernization and the Middle Class in Brazil', Hispanic American Historical Review, Vol. 57/1.

- Nam S. [1995] 'Culture, Control and Commitment in international joint ventures', The International Journal of Human Resource Management, 6, 3.
- Neder R. T. et al [1988] Automação e Movimento Sindical no Brasil, São Paulo: Hucitec.
- Neto S. and Giannotti V. [1990] CUT - Por Dentro e Por Fora, Petrópolis: Vozes.
- " " et al [1993] Para onde vai a CUT?, São Paulo: Página Aberta.
- Noronha E. [1994] 'Greves e Estratégias Sindicais no Brasil', in J. Mattoso et al [orgs.] O Mundo do Trabalho-Crise e Mudança no Final do Século, São Paulo: Scritta.
- " " [1992] 'Greves na Transição Brasileira', Masters Thesis, University of Campinas.
- Norris J. and Munday M. [1995] 'The Iron Fist in the Velvet Glove: Management and Organisation in Japanese Manufacturing Transplants in Wales', Journal of Management Studies – Special Issue, 32, 6.
- O'Brien P. [1985] 'Dependency Revisited', in C. Abel and C. M. Lewis [eds], Latin America: Economic Imperialism and the State, London: ILAS/Athlone.
- O'Donnell G. [1977] 'Corporatism and the Question of the State', in J. Malloy ed., Authoritarianism and Corporatism in Latin America, Pittsburgh: Pittsburgh University Press.
- " " [1973] Modernization and Bureaucratic Authoritarianism, Berkeley: University of California Press.
- O'Donnell G., Schmitter P. and Whithead L. [1986] Transitions from Authoritarian Rule: Latin America, Comparative Perspectives and tentative conclusions about uncertain democracies, Baltimore: John Hopkins University Press.
- Oi W. [1962] 'Labor as a Quasi Fixed Factor', Journal of Political Economy, Vol. 70.
- Oliveira F. A and Junior G. [orgs] [1990] A Política Económica no Limar da Hiperinflação, Campinas: Hucitec/Fecamp.
- Oliveira F. [1992] Collor - A falsificação da Ira, Rio de Janeiro: Imago.
- " " [org] [1991] A Economia Brasileira em Preto e Branco, Campinas: Hucitec/Fecamp.

- " " [1978] A Economia Brasileira: Crítica á Razão Dualista, 6th ed., Petropolis: Vozes.
- Oliveira M. B. [1991] 'Escolaridade e Processo de Trabalho: O Impacto das Inovações Tecnológicas na Qualificação do Trabalhador da Indústria Mecânica', PhD Thesis, Catholic University of São Paulo.
- Oliver N. and Wilkinson B. [1st ed. 1988; 1992] The Japanisation of British Industry, Oxford: Blackwell
- Onzi J. [1992] 'Risultati socio-economici e prospettive della regione di Caxias do Sul', Dimensioni dello sviluppo, 3, 4.
- Palma G. [1981] 'Dependency: A Formal Theory of Underdevelopment or a Methodology for the Analysis of Concrete Situations of Underdevelopment?', in P. Streeton and R. Jolly, Recent Issues in World Development, Oxford: Pergamon.
- Panitch L. [1981] 'Trade Unions and the capitalist state', New Left Review, 125.
- Paoli M. C. [1988] 'Labour Law and the State in Brazil: 1930-1950', PhD Thesis, University of London.
- Parker M. and Slaughter J. [1988] Choosing Sides - Unions and the Team Concept, Boston: South End.
- Parker M. [1985] Inside the Circle - A Union Guide to QWL, Boston: South End.
- Pastore J. and Zilberstajn H. [1988] A Administração do Conflito Trabalhista no Brasil, São Paulo: Hucitec.
- Payne L. [1993] Brazilian Industrialists and Democratic Change, Baltimore: Johns Hopkins University Press.
- Peliano et al [1987] Automação e Trabalho - na indústria automobilística, Brasília: Univ. de Brasília.
- Penn R., Rose M. and Rubery J. [eds] [1994] Skill and Occupational Change, Oxford: Oxford University Press.
- Pereira L. C. [1974] Empresários e Administradores no Brasil, São Paulo: Brasiliense.
- Phillimore J. [1989] 'Flexible Specialization, work organization and skills: Approaching the second industrial divide', New Technology, Work and Employment, 4, 2.

- Piore M. and Sabel C. [1984] The Second Industrial Divide: Possibilities for Prosperity, New York: Basis Books.
- Pollert A. [1988] 'The Flexible Firm: Fixation or Fact?', Work, Employment and Society, 2, 3.
- Poole M. [1986] Industrial Relations: origins and patterns of national diversity, London: Routledge and Kegan Paul.
- " " [1981] Theories of Trade Unionism, London: Routledge and Kegan Paul.
- Portes A. [1985] 'Latin American Class Structures: their composition and change during the last decades', Latin American Research Review, Vol. 20/3.
- Purcell J. [1983] 'The Management of Industrial Relations in the Modern Corporation', British Journal of Industrial Relations, 21, 1.
- Rabelo F. [1989] 'Automação, estrutura industrial e gestão da mão-de-obra: O caso de introdução das máquinas ferramentas com comando numérico na indústria metal-mecânica' Masters dissertation, University of Campinas.
- Rabelo F., Gitahy L. and Costa M. [1991] 'Inovação Tecnológica, relações indústrias e subcontratação' Textos Para Discussão, 10, Campinas: UNICAMP.
- Rachid A. [1994] 'O Brasil imita o Japão?: A Qualidade em Empresa de Autopeças', Masters Thesis, University of Campinas.
- Ramalho J. R. [1989] Estado Patrão e Luta Operárias. O Caso FNM., Rio de Janeiro: Paz e Terra.
- Rands M. [1992] 'Brazilian industrial relations: alternative proposals by the new unionism', M. Sc. Dissertation, Oxford University.
- Ranis P. [1991] 'View from below: Working class consciousness in Argentina', Latin American Research Review, 26, 2.
- Reinhart J., Robertson D., Huxley C. and Wareham J. [1994] 'Reunifying conception and execution of work under Japanese production management: A Canadian case study' in T.Elgar and C.Smith [eds], Global Japanization?: The Transnational Transformation of the Labour Process, London: Routledge.
- Regini M. [ed] [1992] The Future of Labour Movements, London: Sage.

- Roberts B. [1981] 'Multinational Enterprise and Labour', in P. Doeringer et al [eds] Industrial Relations in International Perspective, London: Macmillan.
- Rocha G. [1994] 'Redefining the Role of the Bourgeoisie in Dependent Capitalist Development - Privatization and Liberalization in Brazil', Latin American Perspectives, 80, 21, 1.
- Rodrigues I. J. [1990] Comissão de Fábrica e trabalhadores na indústria, São Paulo: Cortez/FASE.
- Rodrigues L. M. [1990 a] CUT: os militantes e a ideologia, Rio de Janeiro: Paz e Terra.
- " [1990 b] Partidos e Sindicatos - Escritos de Sociologia Política, São Paulo: Atica.
- " [1970] Industrialização e Atitudes Operárias. Estudo de um grupo de Trabalhadores, São Paulo: Editora Brasiliense.
- " [ed] [1968] Sindicalismo e sociedade, São Paulo: Difusão Européia do Livro.
- Rodrigues L. M. and Cardoso A. M. [1993] Força Sindical - Uma Análise Sócio-Política, São Paulo: Paz e Terra.
- Roett R. [org] et al [1978] O Brasil na Década de 70, Rio de Janeiro: Zahar.
- Roese M. [1988] "Novas Formas de Gestão do Trabalho e Relações Gerência/Operárias – Estudo de Caso em uma Metalúrgica Gaúcha", paper for ANPOCS, Águas de S. Pedro.
- Rosenberg S. [1987] 'From Segmentation to Flexibility', International Institute for Labour Studies - Discussion Paper, no. 5.
- Roxborough I. [1992] 'Inflation and social pacts in Brazil and Mexico', Journal of Latin American Studies, 24.
- " [1989] 'Organized Labour: A major victim of the debt crisis', in B. Stallings and R. Kaufman [eds] Debt and Democracy in Latin America, Boulder: Westview Press.
- " [1985] 'State, Multinationals and the Working Class in Brazil and Mexico', in C. Abel and C.M. Lewis [eds], Latin America: Economic Imperialism and the State, London: Macmillan.

- " [1984a] 'Unity and Diversity in Latin American History', Journal of Latin American Studies, Vol 16.
- " [1984b] Unions and politics in Mexico: the case of the automobile industry, Cambridge: Cambridge University Press.
- " [1981] 'The Analysis of Labour Movements in Latin America: Typologies and Theories', Bulletin of Latin American Research, Vol.1/1.
- " [1979] Theories of Underdevelopment, London: Macmillan.
- Roxborough I. and Bizberg I. [1983] 'Union locals in Mexico: the new unionism in steel and autos', Journal of Latin American Studies, 15, 1.
- Ruas R. [1995] 'Novos Princípios Gerenciais e a Organização e Gestão do Trabalho', Cadernos Tecnico, no. 22, CNI/SESI.
- Ruas R., Antunes A. and Roese M. [1993] 'Avanços e Impasses do Modelo Japonês no Brasil: Observações acerca de Casos Empíricos' in H.Hirate [org], Sobre o "Modelo" Japonês - Automatização, Novos Formas de Organização e de Relações de Trabalho, São Paulo: EDUSP/Aliancia Cultural Brasil-Japão.
- Sabel C. [1982] Work and Politics, Cambridge: Cambridge University Press.
- Sader E. [1988] Quando novos personagens entraram em cena: experiências, falas e lutas dos trabalhadores da Grande São Paulo, 1970-1980, Rio de Janeiro: Paz e Terra.
- Sader E. and Silverstein K. [1991] Without fear of being happy: Lula, the workers party and Brazil, London: Verso.
- Salerno M. [1993] 'Modelo Japonês, Trabalho Brasileiro' in H.Hirate [org], Sobre o Modelo Japonês, São Paulo: EDUSP/Aliancia Cultural Brasil-Japão.
- " [1985] 'Produção, trabalho e participação: CCQ e Kanban numa nova imigração japonesa' in A. Fleury and R. Fisher [orgs], Processo e Relações do Trabalho, São Paulo: Atlas.
- Salm C. and Fogaça A. [1992] 'Modernização Industrial e A Questão dos Recursos Humanos', Economia e Sociedade, 1, August.
- Sandoval S. [1993] Social change and labour unrest in Brazil since 1945, Boulder: Westview Press.
- " [1984] 'Strikes in Brazil', Phd Thesis, University of Michigan.

- Scott A. [1994] Willing Salves? British workers under Human Resource Management, Cambridge: Cambridge University Press.
- Sevcenko N. [1992] Orfeu Extático na Metrópole - São Paulo sociedade e cultura nos frementes anos 20, São Paulo: Companhia das Letras.
- Schmitter P. [1974] 'Still the Century of Corporatism?', in F. Pike and T. Stritch [eds] The New Corporatism: Social Political Structures in the Iberian World, Notre Dame/London: University of Notre Dame Press.
- Schmitz H. [1985] Technology and Employment Practices in Developing Countries, London: Croom Helm.
- Schmitz H. and Carvalho R. [1988] Automação, Competitividade e Trabalho: A experiencia internacional, São Paulo: Hucitec.
- " " [1989] 'Automation and Labour in the Brazilian Car Industry', The Journal of Development Studies, 26, 1.
- Schregle J. [1981] 'Comparative Industrial Relations: pitfalls and potential', I.L.O.Review, vol. 120/1.
- Semler R. [30th ed., 1988] Virando a Própria Mesa, São Paulo: Nova Cultura.
- Segre L. and Tavares S. [1991] "Estratégias Empresarias para a Implantação das Inovações Organizacionais: Limites para a Participação dos Trabalhadores", paper for the seminar 'Modernização Tecnológica e Trabalho: Perspectivas para o Setor Metalurgico', São Paulo: LABOR/Instituto Eder Sader/FE-UNICAMP.
- Sewell G. and Wilkinson B. [1992] 'Someone to watch over me: Surveillance, discipline and the Just-in-Time labour process', Sociology, 26, 2.
- Shaiken H. [1994] 'The New International Division of Labour and it's Impact on Unions: A Case Study of High Tech Mexican Export Production' in J. Belanger, P. Edwards and L. Haiven Workplace Industrial Relations and the Global Challenge, Ithaca: ILR Press.
- " " [1994] 'Advanced Manufacturing and Mexico: A new international division of labour?', Latin American Research Review, 29, 2.
- Siddique S. [1989] 'Industrial Relations in a Third World Setting: A Possible Model', British Journal of Industrial Relations, September.
- Silva E. B. [1991] Refazendo a Fábrica Fordista, São Paulo: Hucitec.

- " " [1990] "Remaking the Fordist Factory?: Industrial Relations in Brazil in the past and for the future", conference paper for, 'Autor du Modele Japonais: Automatisation, Nouvelles Formes d'organisation et de Relations de Travail', Paris: CNRS.
- " " [1988] 'Labour and Technology in the Car Industry: Ford Strategy in Britain and Brazil', PhD Thesis, University of London.
- Silva L. I. L. da [1979] 'Interview', Latin American Perspectives, Issue 23, 6,4.
- Simões C. [1986] A Lei do Arrocho - Trabalho, Previdência e Sindicatos no Regime Militar, 1964-1984, Petropolis: Vozes.
- Skidmore T.E. [1988] The Politics of Military Rule in Brazil, 1964-1985, New York: Oxford University Press.
- " " [1979] 'Workers and Soldiers: Urban Labour Movements and Elite Responses in Twentieth-Century Latin America', in V. Berhard [ed] Elites, Masses and Modernization in Latin America, Austin: University of Texas Press.
- " " [1967] Politics in Brazil, 1930-1964: An experiment in democracy, New York: Oxford University Press.
- Sleigh S. [ed] [1989] Economic Restructuring and Emerging Patterns of Industrial Relations, Kalamazoo: Upjohn Institute.
- Soares R. [org] [1990] Gestão da Empresa: Automação e Competitividade, Brasilia: IPEA.
- Souza A. G. de [1990] 'Do corporativismo ao (neo) corporativismo: dilemas da reforma sindical no Brasil', in J. P. dos R. Velloso [ed], Modernização politica e desenvolvimento, Rio de Janeiro: José Olympio.
- Spalding H. [1977] 'Labour and Populism: Argentina and Brazil'; in H. Spalding[ed], Organized Labour in Latin America: historical case studies of workers in dependent societies, New York: Harper and Row.
- Spencer A. [1994] 'Models of Organization and Total Quality Management: A Comparison and Critical Evaluation', Academy of Management Review, 19, 3.
- Springer J. [1969] A Brazilian Factory Study, Cidoc cuaderno 33, Cuernavaca, Mexico: CIDOC.

- Spyropoulos G. [ed] [1985] Trade Unions in a Changing Workplace, vol II of the "Trade Unions Today and Tomorrow" series, Maastricht: Presses Interuniversitaires Européennes.
- Standing G. and Tokman V. [1991] Towards social adjustment: Labour market issues in structural adjustment, Geneva: ILO.
- Stepan A. [ed] [1989] Democratizing Brazil: problems of transition and consolidation, New York: Oxford University Press.
- Storey J. [ed] [1995] Human Resource Management: A Critical Text, London and New York: Routledge.
- " " [ed] [1989] New Perspectives on Human Resource Management, London and New York: Routledge.
- Strauss G., Gallagher D. and Fiorte J. [eds] [1991] The State of the Unions, Madison: IR Research Association.
- Streeck W. [1987] 'The Uncertainties of Management in the Management of Uncertainty: Employers, Labour Relations and Industrial Adjustment in the 1980's', Work, Employment and Society, Vol. 1, 3.
- Sturdy A., Knights D. and Willmott H. [eds] [1992] Skill and Consent - Contemporary Studies in the Labour Process, London: Routledge.
- Sussex E. [1992] 'The Impact of Structural Change on Unions', in G. Liemt Industry on the Move, Geneva: ILO.
- Suzigan W. [1992] 'A Política Industrial Brasileira após Uma Década de Estagnação', Economia e Sociedade, 1, August.
- " " [1989] "Condicionantes e princípios básicos de uma estratégia industrial brasileira para a década de noventa", paper for 'Simpósio EPUSP sobre Modernização Tecnológica e Política Industrial', São Paulo.
- " " [1986] Indústria Brasileira. Origen e Desenvolvimento, São Paulo: Brasiliense.
- Taïeb E. and Barros O. [1989] Économie et société brésiliennes: croissances ou développement?, Paris: Nathan.
- Tartaglia J. and Oliveira O. [orgs] [1988] Modernização e Desenvolvimento no Interior de São Paulo, São Paulo: UNESP.

- Tauile R. [1984] 'Microelectronics, Automation and Economic Development', Phd Thesis, SSR, New York University.
- Tavares M. C., Filho E. T. and Burlamaqui L. [1991] Japão: Um Caso Exemplar de Capitalismo Organizado, Brasilia: IPEA/CEPAL.
- Tayeb M. [1995] 'The competitive advantage of nations: the role of HRM and it's socio-cultural context', The International Journal of Human Resource Management, 6, 3.
- Taylor B., Elgar T. and Fairbrother P. [1994] 'Transplants and Emulators: The Fate of the Japanese Model in British Electronics', in T.Elgar and C.Smith [eds], Global Japanization?: The Transnational Transformation of the Labour Process, London: Routledge.
- Teixeira P. P. [1990] A Fábrica do Sonho, Rio de Janeiro: Paz e Terra.
- Thomas H. [ed] Globalization and Third World Trade Unions: The Challenge of Rapid Economic Change, London: Zed Books.
- Thompson M. and Roxborough I. [1982] 'Union Elections and democracy in Mexico: a comparative perspective', British Journal of Industrial Relations, 20/2.
- Thompson P. [1989] The Nature of Work: An Introduction to Debates on the Labour Process, 2nd ed., London: Macmillan.
- Thurley K. and Wood S. [1983] Industrial Relations and Management Strategy, Cambridge: Cambridge University Press.
- Thurow L. [1972] 'Education and Income', The Public Interest, Summer.
- Tolliday S. and Zeitlin J. [eds] [1992] Between Fordism and Flexibility - The Automobile Industry and it's Workers, Providence: BERG.
- Tsunekawa K. [1989] 'Dependency and Labour Policy: The Case of the Mexican Automotive Industry', PhD Thesis, Cornell University.
- Tuckman A. [1994] 'The Yellow Brick Road: Total Quality Management and the Restructuring of Organizational Culture', Organizational Studies, 15, 5.
- Turner L. [1991] Democracy at Work: Changing World Markets and the Future of Labor Unions, Cornell: Cornell University Press.
- Tyler W. [1976] 'Brazilian Industrialization and Industrial Policies: A Survey', World Development, vol. 4, 10-11.

- Vargas N. [1985] 'Gênese e Difusão do Taylorismo no Brasil', Revista Ciências Sociais Hoje, São Paulo: Cortez-ANPOCS.
- Velloso J. P. and Rodrigues L. M. [orgs] [1992] O Futuro do Sindicalismo - CUT, Força Sindical, CGT, São Paulo: Livaria Nobel.
- Villela A. and Suzigan W. [1977] Government Policy and the Economic Growth of Brazil 1889-1945, Rio de Janeiro and London: Vozes.
- Visser J. [1988] 'Trade Unionism in Western Europe: Present situation and future prospects', Labour and Society, 13, 2.
- Wallerstein M. [1980] 'The Collapse of Democracy in Brazil: Its Economic Determinants', Latin American Research Review, vol 15, 3.
- Walton R. [1985] 'From control to commitment in the workplace', Harvard Business Review, March-April.
- Warren B. [1980] Imperialism: Pioneer of Capitalism, London: New Left Books and Verso.
- Weber M. [1964] The Theory of Social and Economic Organization, New York: transl. and ed. by A. M. Henderson/T. Parsons.
- Weffort F. C. [1978-9] 'Democracia e movimento operário: algumas questões para a história do período 1945-1964', Revista de Cultura Contemporânea, 1, (Part 1); 2 (Part 2); and, Revista de Cultura Política, 1, (Part 3).
- " " [1970] 'The State and Mass in Brazil', in I.L. Horowitz [ed], Masses in Latin America, New York: Oxford University Press
- Weinstein B. [1990] 'The Industrialists, the State, and the Issues of Worker Training and Social Services in Brazil, 1930-50', Hispanic American Historical Review, 70, 3.
- Wells J. [1983] 'Industrial accumulation and living standards in the long run: the São Paulo industrial working class, 1930-1975', Journal of Development Studies, Vol. 19/2-3.
- Wiarda H. [1978] 'Corporative Origins of the Iberian and Latin American Labour Relations Systems', Studies in Comparative International Development, 13,1.
- Wickens P. [1994] 'Lean Production and Beyond: The System, its Critics and the Future', Human Resource Management Journal, 3, 4.

- Wilkinson A. [1993] 'Managing Human Resources for Quality', in B. G. Dale [ed] Managing Quality, 2nd ed., London: Prentice Hall
- Williamson O.[1986] Economic Organization: firms, markets and policy control, Brighton: Wheatsheaf.
- " " [1975] Markets and Hierarchies - analysis and antitrust implications: a study in the economics of internal organization, New York: Free Press.
- Winn P. [1979] 'Oral History and the Factory Study. New Approaches to Oral History', Latin American Research Review, Vol 2, 14.
- Wolfe J. [1993] Working women, working men: São Paulo and the rise of Brazil's industrial working class, 1900-1955., Durham: Duke University Press.
- Womack J. and Jones D. [1994] 'From Lean Production to the Lean Enterprise', Harvard Business Review, March-April.
- Womack J., Jones D. and Roos D. [1990] The Machine that Changed the World, New York: Rawson Macmillan. [in Portuguese – A Máquina que Mudou o Mundo, Rio de Janeiro: Campus.]
- Wood S. [1993] "High Commitment Work Organizations", paper for British Universities Industrial Relations Association Conference, University of York.
- " " [1992] 'Japanization and/or Toyotism?', Work, Employment and Society, 5, 4.
- " " [1990] "Debating Japanese Management: Post Fordism or the Japanization of Fordism", paper for conference - 'Autour du Modele Japonese: Automatisation, nouvelles formes d'organisation et de relations de travail', Paris: CNRS.
- " " [ed] [1989] The Transformation of Work? Skill, Flexibility and the Labour Process, London: Unwin Hyman.
- Wood S. et al [1975] 'The Industrial Relations System Concept', British Journal of Industrial Relations, November.
- Zapata F. [1994] 'Crises do Sindicalismo na America Latina?', Dados, 37,1.
- " " [1990] 'Towards a Latin American Sociology of Labour', Journal of Latin American Studies, Vol. 22, 2.

## 2) PUBLICATIONS, DOCUMENTS AND ARTICLES BY ORGANISATIONS

### **Banco Nacional de Desenvolvimento Econômico e Social [BNDES]:**

'Informação sobre o setor de fogões/eletrodomesticos', Technical Paper, Rio de Janeiro, 1975.

'Enxuta', (internal evaluation document), 13/7/90

'Organização da Produção & Gestão da Qualidade', Estudos BNDES, no.18, 12/91.

### **Brasmotor:**

Global, various issues; in particular - 'Edição Especial', no. 26, 4-5/94.

Visão - Objectivos, Valores e Mudança, São Paulo, 1992.

### **Brastemp S. A.:**

'Boletim Informativo Brastemp', São Bernardo, 1990-93

Bras-Noticias, (weekly leaflet for Brastemp employees), São Bernardo and Rio Claro (separately), various issues, see in particular - no. 8, 14/8/92 on São Bernardo plans and no. 80, 1993 on the Brastemp-Rio Claro beauty contest.

Brastemp, Central Administration Centre (CAB) - (untitled) graphs on turnover, overtime and absenteeism at Brasmotor factories.

'Indicadores de Recursos Humanos', CAB, São Paulo, 1991-94

Journal Brastemp, various issues, see in particular - nos 9 and 11, 1992 and 4/93.

Lavadora Brastemp Mundial, 1992, Rio Claro.

'Pesquisa Salarial', Brastemp-Rio Claro, 9/92.

'Pesquisa Salarial, Horista Análise', Brastemp-São Bernardo, 9/92.

'Plano de Desenvolvimento de Horistas', Brastemp-Rio Claro, 1st Revision, 2/94

'Poupança Evolução - Plano de Desenvolvimento de Horistas', Brastemp-Rio Claro, 1990.

'Projeto Descoberto de Novas Talentos', Brastemp-São Bernardo, 1993

'Recursos Humanos - Controle dos dados salariais e readjustes salariais', 1989-93.

Regimento Interno da Comissão de Fábrica, Brastemp-São Bernardo, 1994

Training Manuals (Rio Claro) - 'Segmento Comportamental-Percepção'; 'Trabalho em Equipe'; 'Segmento Analítico-Graficos', 1993.

#### **Caxias do Sul Chamber of Commerce [CIC]:**

Boletim Técnica, 2/93

Caxias do Sul - Perfil Sócio-Econômico, 12/92.

Destques do Mês, CIC Caxias, 5/92.

#### **Centro Brasileiro de Análise e Planejamento [CEBRAP]:**

'Reestruturação productiva e novos padrões nas relações capital-trabalho', Cadernos de Pesquisa, 1, 7/94.

#### **Central Única dos Trabalhadores [CUT]:**

Cadernos da CUT, various issues, 1990-93.

Nasce Forte - Resoluções, da 2nd Congresso Nacional dos Metalúrgicos da CUT, Confederação Nacional dos Metalúrgicos da CUT, 7/92

Passos E. 'Os diretos sindicais na nova Constituição', Cadernos da CUT, 1/89.

Plano Nacional de Formação da CUT 1992, 4/92.

Resoluções, 5th Congresso Nacional, São Paulo, 1994

Retrato da CUT, delegados da Concut, São Paulo, 1988 & 1990

Revista da Secretaria Nacional de Formação - Forma e Conteúdo, no. 4, 9/91.  
(metalúrgicos da CUT) Revista dos Metalúrgicos, year 1, 1, 12.

#### **Consul S. A.:**

'A História da Consul' (internal document)

'A ISO 9000 em poucas palavras', Engineering Department, 1992

'Catalogue de Educação e Treinamento', 1994.

Cartilha do 'Sistema da Qualidade', 1992.

Consul-Gente, (weekly leaflet for employees), 1990-1994.

'Estatística de Recursos Humanos', various months (1989-94), see in particular 12/93.

Informativo, Edição Especial - Fábrica III, no 80, summer, 1993

Lar & Cia., Revista da família Consul e Embraco, 1991-94

'Pesquisa Salarial', 1990-93.

(da Amazonia) 'Programa Operador Multifuncional', 3/94.

'Quadro de Pessoal', various months, 1980-89

**Departamento de Estudos Sócio-Econômicos e Políticos da CUT [DESEP]:**

'A Nova Constituição Sindical', Debate Sindical, no. 9, 10/89.

Crise Brasileira-anos iotenta e Governo Collor, São Paulo: Pró-Texto Comp. e Prod. Grafica/DESEP/INCA.

Indicadores DESEP, São Paulo: Editora Marca D'agua, 1994.

**Departamento Intersindical de Estatística e Estudos Sócio-Econômicos [DIEESE]:**

A Categoria um Numeros, 9/92, São Bernardo.

'Acordos e Convenções Coletivas - Cláusulas Seleccionadas', Pesquisa DIEESE, no. 9, 12/93.

Anuário Dos Trabalhadores, 1993 & 1994, São Paulo.

Boletim DIEESE - 1986-1993 for regular data on cost of living estimates/index, 'Linha de Produção' articles and strike statistics/summaries; specifically also - 2/87 on 1987 strikes, 4/86 'Estatutos da CUT', 5/86 'CGTs Plano da Lutas', 4/91 on the formation of *Força Sindical*, 7/89 'Organização do Trabalho e Automação Microeletrônica na Indústria Metal-Mecânica' and 8/89 'Mudanças Tecnológico-Organizacionais em Alguns Setores da Indústria Metal-Mecânica'.

'Brastemp: produtos modernos, arcaicas relações de trabalho', Trocando em Miúdos - Informativo Sócio-Econômico, no 7, 7/88.

“The Brazilian Metalworkers and the New Factory's Challenge: A Negotiated Change at Mercedes Benz”, paper presented to the International IR/HR Network on Autos, IIRA 10th World Congress, Washington D.C., 5/95.

'Decretos e Leis da Política Salarial do Governo desde 1979', 1985, São Paulo.

'Distribuição Salarial, Perdas e Rotatividade dos Metalúrgicos de S. Bernardo e Diadema', Trocando em miúdos - Informativo Sócio-Econômico, no. 2, 9/87.

Estudos Econômicos, no. 2, ' Família Assalariada: Padrão e Custo de Vida', 1/74, São Paulo.

'Indicadores Sócio-Econômicos - Brasil', São Bernardo, 11/92.

'Indústria Eletro-Eletrônica', São Paulo, 21/2/91.

'Modernização Industrial: Os Rumos Recentes e Alternativas da Automobilística', DIEESE Estudo Especial, São Bernardo, 10/89.

'O Plano FHC e os Metalúrgicos do ABC', 2/94.

‘Os Trabalhadores frente à Terceirização’, Pesquisa DIEESE, 7, 1993.

Política Industrial, Restruturação Productiva e Organização do Trabalho - Indicadores e Informações Relevantes, no 1, 5/95.

'Rotatividade e Luta Sindical', Trocando em Miúdos - Informativo Sócio-Econômico, no. 8, 1/89.

'Salários e Distribuição de Renda no Brasil', 10/92.

'S.O.S. - Salário Mínimo', Pesquisa DIEESE, no. 4, 4/92.

Toledo J. [1989] "Automação microelectronica na indústria de bens duráveis: o setor de linha branca" in 'Levantamento dos Indicadores sócio-econômicos da automação - conjunto de setores industriais', São Paulo.

#### **Enxuta S. A.:**

Por Dentro da ISO 9000, Caxias do Sul, 1993.

#### **Força Sindical:**

'Perguntas e Respostas', (internal document), 1992.

Um Projeto Para Brasil - A Proposta da Força Sindical, São Paulo, 2nd ed.: ed. L. Emediato, 1993.

**Fundação Getúlio Vargas [FGV]:**

Conjuntura Econômico, various years

General Index of Prices, various years

**Fundação Vanzolini:**

'Qualidade Industrial: Análise e Proposições', mimeo, São Paulo, 1986.

**Industrial Development Board:**

Economic and Social Progress in Latin America – 1992 Report, Inter-American Development Bank, Washington D. C., 1992.

**Industrial Development Council-Ministry of Industry and Commerce:**

Braga H. [1987] 'Tecnologia e Produção da Indústria Brasileira: um análise exploratória', mimeo, Rio de Janeiro.

**Instituto Brasileiro de Geografia e Estatística [IBGE]:**

Demographic Census, 'mão-de-obra', 1980.

Household Survey, 1986

Industrial Census, various years

Monthly Industrial Survey, various months, 1980-94

**Instituto Brasileiro de Mercado de Capitais [IBMEC]:**

Características Atuais e Perspectivas da Indústria de Eletro-Eletrônica no Brasil, vol 1, Rio De Janeiro, 10/81.

**Instituto de Qualidade:**

'I pesquisa de gerenciamento de qualidade nas empresas Brasileiras', Sao Paulo, Julio Lobos Consultores.

**Joinville Prefeitura [Joinville Municipal Council]:**

Joinville - Vida e Negócios, 1992, Joinville: JP.

**Ministries of Justice/Economy, Construction and Planning/Secretary of Science and Technology:**

Programa Brasileiro de Qualidade e Produtividade, Brasília, 1990.

**Ministry of Labour:**

Cadastro Geral de Empregados e Desempregados, (Lei 4923/65), 1985-95.

**Organisation for Economic Cooperation and Development [OECD]:**

Labour Market Flexibility and Work Organisation – Conference of Experts 17-19/9/90, 'Synthesis of Responses of National Administrations to OECD request for information / Synthesis Report', Directorate of Social Affairs, Manpower and Education, OECD, Paris, 1990.

**Serviço Nacional de Aprendizagem Industrial [SENAI]:**

Annual Report, Joinville, 1992.

Estudo Ocupacional, 'Mecânico de - Lava-Louça (vol 5, 1983); Condicionador de Ar (vol 3, 1983); Lavador de Roupa (vol 4, 1983) and Refrigerador (vol 2, 1982), São Paulo.

**Sindicato dos Trabalhadores nas Indústrias Metalúrgicas, Mecânicas e de Material Elétrico de São Bernardo e Diadema:**

Leaflets:

Sindicato dos Trabalhadores nas Indústrias Metalúrgicas, Mecânicas e de Material Elétrico de São Bernardo e Diadema, Tribuna Metalúrgica, 1985-93

Sindicato dos Trabalhadores nas Indústrias Metalúrgicas, Mecânicas e de Material Elétrico de São Bernardo e Diadema, Jornal dos Trabalhadores da Brastemp, 1985-93

Sindicato dos Trabalhadores nas Indústrias Metalúrgicas, Mecânicas e de Material Elétrico de São Bernardo e Diadema, Jornal da CIPA, dos Trabalhadores da Brastemp, 1993-94

Sindicato dos Trabalhadores nas Indústrias Metalúrgicos, Mecânicas e de Material Elétrico de São Bernardo e Diadema, Metalúrgicos do ABC, 1993-94

Other documents:

Cadernos de Teses/ Resoluções, 1st Congresso dos Metalúrgicos do ABC, São Bernardo, 26/9 - 7/11, 1993.

'Câmara do Setor Automotivo - Breve Histórico, Resume das Discussões e Avaliação do Acordo', 6/92.

Comissão de Fábrica dos Trabalhadores da Brastemp, no. 2, 12/91, São Bernardo do Campo.

Contrato Coletivo de Trabalho, Cadernos 1-3, May, October, December/1992

Ligação, (quarterly magazine), 1990-93.

**Sindicato dos Trabalhadores nas Indústrias Metalúrgicos, Mecânicos e de Materias Elétricos de Caxias do Sul:**

Leaflets:

1985-1987

Sindicato dos Trabalhadores nas Indústrias Metalúrgicos, Mecânicos e de Materias Elétricos de Caxias do Sul, Metalúrgico

1988-1994

Sindicato dos Trabalhadores nas Indústrias Metalúrgicos, Mecânicos e de Materias Elétricos de Caxias do Sul, Informativo dos Metalúrgicos

**Sindicato dos Trabalhadores Metalúrgicos (Mecânicas e Ourives) de Limeira e Região (the Limeira Metals Union):**

Leaflets:

1984 -1986:

'Oposição Sindical Metalúrgico de Limeira e Região'

'Oposição Sindical Metalúrgico de Limeira e Região', Boletim

1986-1990:

Sindicato dos Metalúrgicos de Limeira e Região, Boletim

1991-1994:

Sindicato dos Metalúrgicos (e Ourives) de Limeira e Região, Meta Luta

Other documents:

Dossier - Contra Demissões e Afastamentos de Sindicalistas, São Paulo, 1991.

'Estatuto', 1993

'Fábrica do Futuro - Avanço ou Retrocesso?', 'Para Entender O Momento Político', 'Por uma Nova Estructura Sindical' and 'A Ilha', (booklets) 1993.

Informativo - O Metalúrgico em Casa, year 1, 1, 5/92

Resoluções - 2nd Congresso, Limeira, 15-17/3/91

Resoluções - 3rd Congresso, Limeira, 3-5/12/93

**Sindicato dos Trabalhadores em Oficinas Mecânicas de Joinville (the *Mecânicos*):**

Leaflets:

1988:

Sindicato dos Trabalhadores em Oficinas Mecânicas de Joinville, O Mecânico

1989:

Sindicato dos Trabalhadores em Oficinas Mecânicas de Joinville Oposição - Força Operária

1990:

Sindicato dos Trabalhadores em Oficinas Mecânicas de Joinville, Boletim Informativo - Sindicato Forte

1991- 11/93:

Sindicato dos Trabalhadores em Oficinas Mecânicas de Joinville, Tribuna

11/93 - 1994:

Sindicato dos Trabalhadores Mecânicas e Plásticos de Joinville, Portão de Fábrica

Other documents:

A Greve, 1991

'Estatuto', 1993

Industrial action leaflet, (untitled), 1992.

'Relatoria da 1a Tapa de Curso para Dirigentes', 2-4/6/92

(with the Plásticos) - Saúde não é Doença, 11/91.

**Sindicato dos Plásticos de Joinville:**

Boletim de Circulação Nacional, 'Modernidade Pra Quem?', 1992.

**Sindicato dos Trabalhadores nas Indústrias de Refrigeração, Aquecimento e Tratamento de Ar, Indústrias de Compressores Herméticos para Refrigeração e Indústrias de Artigos e Equipamentos Odontológicos, Médicos e Hospitalares de Joinville (*Sinditherme*)**

Leaflets:

1991-1994:

Sinditherme, Jornal

Other documents:

'Estatutos', 1/8/92 and revision, 1/3/93

**Sociedade Brasileira de Comando Numérico (SOBRACON):**

Retrospectiva da Decada de 80 do Setor da Automação Industrial, São Paulo, 1989.

Automação industrial e computação gráfica - guia brasileiro de automaço industrial, 1992.

**State of Santa Catarina (State Labour Court):**

Tribunal de Justiça, pasta 984, DJ no. 8962, 3/3/94

**University of Campinas:**

Figueiredo A. [coord.] [1992] 'Justica local na area do emprego',

NEPP/UNICAMP, Campinas.

Neto B. et al, [1992] 'A Indústria de eletrodomésticos de linha branca: tendências internacionais e situação no Brasil', Instituto de Economia, Campinas.

**University of Caxias do Sul:**

'A Historia do Sindicato dos Trabalhadores nas Indústrias Metalúrgicos, Mecânicas e de Materias Elétricos de Caxias do Sul', undergraduate research project, Department of History and Geography, 1992

**University of São Paulo:**

'Padrões Tecnológicos e Políticas de Gestão: Processos de Trabalho na Indústria Brasileira', anais do seminário no Departamento de Sociologia, 5-12/88.

**3) MAGAZINES AND NEWSPAPERS**

A Notícia (Joinville):

26/11/92, p11 and 4/2/92, p5.

Asian Business:

'New Broom Sweeps into Asia', vol 32, 3, 3/96, p22

Appliance Manufacturer:

January, 1991 edition - on the "Brastemp Mondial"

'Dedicated to Majors', vol 42, 5, 5/94, pp4-10

'Big Plans for Europe's Big 3', vol 43, 4, 4/95, pp26-30

'Addressing Diversity' (p42), 'Customers for Life' (pp36-37), 'South American Sales Company - Linking the Americas and Europe' (pp38-39), vol 43, 2, 2/95.

'Electrolux buys controlling stake in Brazil's second largest OEM', vol 44,3,3/96, p14

Banker:

'Kings of the Deal', vol 44, 2/94, pp20-24

Barron's:

'Oh boy what a washer', vol 74, 26/9/94, pp17-18

Business Week:

'Call it Whirlpool', issue 3401, 28/11/94, pp98-99

Díario de Rio Claro:

5/2/92, p11

Estado de São Paulo:

various issues 1992-94; specifically 12/8/93, p14 on Embraco's/Whirlpool's purchase of a compressor facility in Europe.

Exame:

various issues 1992-94, specifically 22/1/92 on tariff reduction plans, 4/9/91 on their commissioned modernisation research.  
'O Futuro é dos Baixinos', 13/12/89, pp60-62

Federação das Indústrias da Santa Catarina [FIESC]:

Expressão - Economia e Empresas, 1, 3, 5/90.

Folha de São Paulo:

various issues 1992-94, specifically - 'Informe Publicitário/Consul', 25/11/92, pp1-8

Gazeta Mercantil:

various issues 1992-94, specifically 23/3/92.  
Balanço Anual, 1991-93.

Harvard Business Review:

'The Right Way to go Global: An Interview with Whirlpool CEO David Whitham', March-April, 1994.

Industrial Engineering:

'First fibre to the factory creates competitive advantage' vol, 26, 11, 11/94, pp24-25.

Institutional Investor:

'Appliances: Hermetic Compressors for the World', vol 29, 10, 10/95, p19.

Management Decision:

'Managing without Supervisors', 32, 5, 1994, pp50-51.

Personel Journal:

'Leveraging a Low-wage Workforce', 1, 1995, pp90-102.

Personel Review:

'Managing Without Supervisors', vol 23, 2, 1994, pp26-28.

Veja:

various issues 1992-94, in particular - 30/9/92 in respect to the problems facing the Collor presidency.

#### 4) INTERVIEWS (in addition to the worker sample)

##### A) The Case Study Companies:

staff from - engineering, marketing, human resources (selection, salaries, training etc), social services and research and development. Factory managers, supervisors and technical staff in the factories were also consulted on many occasions. A number of senior executives in the companies and Brasmotor were also interviewed.

##### B) The Case Study Unions:

union presidents, secretaries, factory delegates, CIPA representatives, womens' officers (when they existed), lawyers, social services personell and activists. Outside of the local unions, state and national research/policy staff of DESEP, DIEESE, CEBRAP, CUT and *Força Sindical* were consulted on many occasions.

##### C) Others:

local academics (all locations), Chamber of Commerce staff (Joinville/Caxias), SESI/SENAI staff (São Paulo/Rio Claro), white goods repairpersons (Campinas) and former white collar employees (of Enxuta). Federation of industry personell (São Paulo, Caxias and Joinville) were also interviewed as were representatives of the electro-electronic sector (ABINEE).