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**EMPLOYER 'DEPENDENCE' AND WORKER 'ALLEGIANCE' WITHIN THE
FACTORY OF THE FUTURE: EVIDENCE FROM BRAZIL**

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ABSTRACT

Some commentators have suggested that employers who modernise their factory operations will become dependent on the skills and attitudes of their employees. Others go beyond this and suggest that workers in modernised firms will be persuaded to go 'beyond contract' due to the emergence of a strong and direct form of attachment to their employer. Moreover, with 'us and them' attitudes removed, it is uncertain what effect this may have on workers' attitudes to the union. This paper puts these debates about factory modernisation and workers' attitudes to the employer and the union to the test using detailed data from the Brazilian white goods industry during the 1990s.

The research suggests the following in respect to this 'axis of allegiance'. First, workers can be persuaded to think in terms of an effort bargain which includes issues beyond just remuneration. Many employees are also taking a more inward-looking, 'employer positive' approach. However, their degree of attachment to the modernised firm is both limited and contingent on future, expected benefits.

Secondly, in terms of the worker-union relation, the cynicism of Brazilian workers to unions may have been heightened by the policies of the modernising firm. While part of this result may be due to the modernising firms' selection policies, the union's 'electorate' may also have shifted its priorities. Despite this, many workers would still like unions to have an active and independent role. Yet this is dependent on union policies being directed towards the promotion of worker's key (and often new) workplace concerns.

Finally, while these results are influenced by the Brazilian context they do raise questions about the attitudinal and behavioural underpinnings of modernisation in any environment. As long as employers act to minimise the risk to which they may become more dependent on workers, employee behaviour will, at best, only appear to indicate that they have more allegiance to the employer. Moreover, workers' concerns about workplace modernisation policies suggest that unions may not necessarily become more ineffectual and irrelevant.

1.0 INTRODUCTION

In the early 1990s a number of commentators suggested that employers who modernise their management and workplace systems might become more dependent on the skills and attitudes of their employees¹. Yet the frequent observation that more sophisticated labour control mechanisms have evolved questions the implication that work and work attitudes will 'improve' to any great extent within the modernising firm². Nevertheless, other writers go beyond a belief in the attitudinal effects of changes to work per se. They suggest that workers at modernised firms will be persuaded to go 'beyond contract' due to the emergence of a strong and direct form of attachment to their employer³. Moreover, with 'us and them' attitudes removed, it is uncertain what effect this may have on workers' attitudes to their union.

The purpose of this paper is to test these debates about employer dependence and workers' attitudes to the employer and their union. Has the employer really become more open and democratic and has the 'axis of allegiance' shifted in the way optimists suggest? More specifically, to what degree are workers more attached to their employer and does this also suggest that the union may become increasingly irrelevant to workers within this new, 'Mutual Gains' enterprise?

The context for the study from which this paper draws is the Brazilian White Goods industry during the 1990s⁴. Within this study, the testing of hypotheses about changes to work and attitudes to the employer and union were based on a comparison of workers' responses in firms which have changed little with those which have modernised in a most comprehensive way. This data is drawn from intensive interviews with nearly 100 workers from four white goods companies.

This paper is structured as follows. Section 2.0 defines the concepts in question and summarises the arguments of a number of prominent US and UK authors in these areas of research. Section 3.0 provides an overview of how these issues of employer dependence and worker allegiance have been seen within the Brazilian context. Section 4.0, on the other hand, summarises the nature of modernisation policy and practice at the case study firms, particularly at those who have modernised in a most comprehensive way. The ambiguities which this review leaves, in terms of employer policy and changes to work, means that the optimistic modernisation argument must be based on changing attitudes to the employer (and union).

Accordingly, Section 5.0 presents primary evidence about whether and how workers' attitudes to the employer and union have changed as a result of the modernisation process. Subsection 5.1 reviews workers' responses to questions such as - whether their employer has more interest, what they have and might gain and the probability that they might leave the firm. On the other hand, subsection 5.2 reveals how workers rate their union and in what they want their unions to become involved. Section 6.0 summarises and concludes the paper.

¹ Well known works include - J. Womack, D. Jones and D. Roos, The Machine that Changed the World, (New York, 1990) and N. Oliver and B. Wilkinson, The Japanisation of British Industry, (Oxford, 1988/92).

² As discussed in Section 2 of this paper.

³ Principle authors along this line referred to in this paper are – J. Lincoln and A. Kallenberg, Culture, Control and Commitment, (Cambridge, 1989), T. Kochan and P. Osterman, The Mutual Gains Enterprise, (Boston, 1994) and E. Applebaum and R. Batt, The New American Workplace, (New York, 1994).

⁴ L. Pegler, 'Workers, Unions and the "Politics of Modernisation": Labour Process Change in the Brazilian White Goods Industry', (2000), Phd Thesis, LSE, University of London.

2.0 THEORETICAL AND EMPIRICAL CONSIDERATIONS

According to optimists, the 'factory of the future' represents a substantial modernisation of management strategy and structures as well as significant changes to the shopfloor⁵. As discussed by these authors, at the management level this implies the promotion of quality and continuous improvement through a new mission statement and through simpler organisational structures and more generous and democratic human resource policies and incentive systems. At the shopfloor, modernisation involves new production technologies and techniques and a new model of work. In this regard, optimists argue that work will be based on greater levels of responsibility and autonomy and improved employee conditions (e.g. expanded training) and employee relations (e.g. new forms of involvement)⁶.

This schema is based on the apparently simple idea that modernisation will lead to a change in attitudes and that this will feed through into improved company performance. There are three major causal links within this idea⁷. The first is that modernisation policies change the nature of work and attitudes to work. The second is that these policies will alter the degree of worker attachment to the firm (and to the union). The third is that, due to these changing attitudes, unions must alter their approach to continue to be representative and effective bodies. To optimists, the concept of 'us and them' is no longer relevant. Firms will become more dependent on workers' attitudes and skills, workers will show more allegiance to the firm and unions have to modify their behaviour (i.e. become moderate) so that they don't now become the 'them' in workers' eyes⁸.

This paper focuses on the second of these linkages. This is because, while early works focussed on the relation between changes to work, work attitudes and firm performance (i.e. the first link), more recent literature seriously questions this hypothesis. Significant question marks have been raised over whether job satisfaction filters through into firm performance and in fact over how much workers actually like their new tasks, even in Japan⁹. Consequently, more recent optimists focus more clearly on attitudes to the employer (and union) as a result of modernisation policies¹⁰.

What then does the international literature suggest in terms of the new, more open, dependent employer? Moreover, has there been a shift in the 'axis of worker allegiance' towards the employer and away from the union? In the first case, the debate about whether employers have become more dependent on workers as a result of modernisation can be divided into two schools of thought – the optimists and the pessimists.

A number of the optimists who have focussed their attention on the effects of modernisation on attitudes to the employer make use of broad, integrated models of company change. Concepts such as the 'Mutual Gains Enterprise'¹¹, 'US Team Production'¹²

⁵ See, in particular, on the following summary of the elements of the composite model – Kochan and Osterman, Mutual Gains, pp45-58.

⁶ See footnote 3. However, the classic writers on these work themes were of course – M. Piore and C. Sabel, The Second Industrial Divide: Possibilities for Prosperity, (New York, 1984).

⁷ A point succinctly made in Lincoln and Kallenberg, Culture, p4.

⁸ Another key protagonist on this last union point is – M. Piore, 'Unions: A Reorientation To Survive' in Labor Economics and Industrial Relations, eds. C. Kerr and P. Staudohar, (London, 1994), pp512-544.

⁹ Noted for the general literature in Lincoln and Kallenberg, Culture, p4, p25 and for their study of Japan/US as summarised in Ch. 9. In fact, past international reviews note that job satisfaction has strong links to reduced turnover and absenteeism and not to company allegiance or performance (D. Guest, 'Human Resource Management and Industrial Relations', Journal of Management Studies, (1987), 24, 5, p513-514 and D. Guest and P. Dewe, 'Company or Trade Union: Which wins worker allegiance?' BJIR, (1991), 29, 1.

¹⁰ Discussed below.

¹¹ Kochan and Osterman, Mutual Gains

¹² Appelbaum and Batt, New Workplace

and 'Welfare Corporatism'¹³ have been suggested. Each of these concepts is based on the company using an integrated set of strategic, HRM and workplace policies¹⁴. Moreover, each of these authors either states or assumes that a comprehensive form of modernisation is emerging.

However, the survey evidence that each author relies on is not very convincing. Instances of firms adjusting their HRM, strategic and workplace policies in this way remain quite rare¹⁵. The case study evidence used to support the 'Mutual Gains Enterprise' and 'US Team Production' is not very convincing either¹⁶. The use of 'best case' examples (e.g. Saturn, CAMMI, Xerox and Nissan) merely highlights their minority and key sector status. Most other case studies reviewed demonstrate that, despite the rhetoric, employers are only prepared to offer minor adjustments to involvement, participation and gains sharing. New forms of training are often highly geared to specific functions of that firm or to attitudes to the firm.

Other authors are more pessimistic. To them, most examples of modernisation will be partial. This is due to the interaction of context and the lack of realism inherent in the optimistic argument. Alternatively, where comprehensive examples arise, any drift towards greater employer dependence on workers' skills and attitudes will be countered by new and more onerous forms of control than had been evident in earlier forms of factory regime. For example, through detailed participant observation, Graham notes that what has evolved within the comprehensively modernised factory is in fact a more complete system of control¹⁷. The mechanisms through which her observations of enhanced monitoring, pressure and reduced autonomy evolve include - the selection process, orientation and training, team pressures and the technical JIT and line systems employed¹⁸.

Authors such as Garrahan and Stewart¹⁹, Rinehart et al²⁰, Delbridge²¹ and Taylor et al²² support such a view. Where the prospect of greater employer dependence arises, employers are frequently responding with more sophisticated and onerous forms of control²³. Moreover, historical, local and broader contextual factors play a crucial role in terms of the type and degree of modernisation and control systems which emerge.

If, therefore, new factory systems can be characterised as more controlling, what does this suggest about workers' attitudes to the employer and the union? Following this, if workers are subject to greater control what opportunities for resistance do they now have? On these questions the literature can also be divided into an optimistic and a pessimistic group.

¹³ Lincoln and Kallenberg, *Culture*

¹⁴ See for example, Kochan and Osterman, *Mutual Gains*, Ch3.

¹⁵ Discussed by these authors in - Kochan and Osterman, *Mutual Gains*, pp79-109 and Applebaum and Batt, *New Workplace*, p57-68. Reviewed in Pegler, "Politics of Modernisation", pp17-18.

¹⁶ Appelbaum and Batt, *New Workplace*, pp69-97, Kochan and Osterman, *Mutual Gains*, pp 58-77. Reviewed by Pegler, "Politics of Modernisation", pp18-20.

¹⁷ 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.

¹⁸ *Ibid.*, pp132-141.

¹⁹ 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, pp 46-62.

²⁰ 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 Japanisation*, pp152-174.

²¹ R. Delbridge, 'Surviving JIT: Control and Resistance in a Japanese Transplant', *Journal of Management Studies-Special Issue*, (1995), 32, 6, pp 803-817.

²² B. Taylor, T. Elgar, and P. Fairbrother, 'Transplants and Emulators: The Fate of the Japanese Model in British Electronics', in *Global Japanisation*, pp196-225.

²³ This would seem to fit with the third and more subtle form of power (control) suggested by, S. Lukes, *Power - A Radical View*, (London, 1977).

As suggested above, optimists believe that a greater degree of worker attachment (commitment) to the firm will arise. One of the more convincing arguments for this can be seen in Lincoln and Kallenberg's comparative analysis of US and Japanese firms²⁴. Furthermore, it is important to note that many of these optimistic authors also argue that the long-term survival of a comprehensive modernisation strategy requires the active role of unions. Yet this implies that unions must be more supportive of the firm than is often the case²⁵. It also carries the implicit assumption that workers can maintain dual allegiance to both company and union.

In stark contrast, pessimists such as Graham point to the pressure of the firm's policies on workers' attitudes and behaviour²⁶. Many workers do not believe in the firm's 'new' message but are often constrained, by the transparency of the factory system, to openly voice their concerns. Rinehart et al and others also note that some workers believe in the new firm, some risk openly cynical behaviour whereas others act 'as if' they support the firm and its policies²⁷.

Transparent factory systems combined with the unitary message of the 'new' firm mean that traditional forms of resistance (both inside and outside the factory) become more difficult to sustain²⁸. Within this type of situation, combative unions note the new difficulties they encounter in their attempt to act as a 'voice' of workers²⁹. This scenario also makes it hard to imagine that workers could have dual allegiance to both union and company – a point noted by past literature on dual allegiance³⁰.

Following these points, more subtle types of workplace control policies may merely aggravate the existing structural and representational problems which unions face³¹. For example, workers may like some aspects of new factory systems (such as training, career schemes etc) or they must act 'as if' they do. This may mean that the prospect that they will turn to unions for support will become even more uncertain. The question of whether unions must then adopt moderate or militant identities thus becomes more complex – particularly in contexts where unions already face a harsh facilitating environment³².

In summary, this brief international overview of the employer dependence-worker allegiance debate suggests a number of points in respect to the analysis of these issues in Brazil. First, there is significant evidence to suggest that even when an employer embarks on a comprehensive modernisation strategy they will respond to the prospect of their greater dependence on workers with new and more subtle forms of control. Secondly, within this environment workers may hold a variety of attitudes and demonstrate various behavioural responses. This highlights the continuing interplay of consent, control, conflict and resistance within the 'factory of the future'. Finally, the form of modernisation plus the nature of employer dependence and worker allegiance may vary significantly between contexts.

²⁴ Lincoln and Kallenberg, *Culture*, Ch 9.

²⁵ See, for example, *ibid.*, pp 229-232

²⁶ Graham, 'A View from the line', pp 141-147.

²⁷ Rinehart et al, 'A Canadian Case Study', pp 164-165

²⁸ Delbridge, 'Surviving JIT', pp 812-814.

²⁹ Rinehart et al, 'A Canadian Case Study', pp 166-169.

³⁰ See, for example, D.Guest, 'Human Resource Management, Trade Unions and Industrial Relations', in *Human Resource Management: A Critical Text*, ed. J. Storey, (London, 1995), pp112-117 and Lincoln and Kallenberg, *Culture*, pp 23-24.

³¹ For an excellent discussion of these issues and the new problems created by factory modernisation see – P. Ackers, C.Smith and P.Smith eds., *The New Workplace and Trade Unionism*, (London, 1996).

³² For a good discussion of union identity options see also – R. Hyman, 'Changing Trade Union Identities and Strategies' in *New Frontiers in European Industrial Relations*, eds, R. Hyman and A. Ferner, (1994). The critical role of context for union options and the allegiance debate is well discussed in S. Deery et al, 'Predicting Organisational and Union Commitment: The Effect of Industrial Relations Climate' *BJIR*, (1994), 32, 4, pp581-597.

Accordingly, in preparation for the analysis of the case study firms in section 4, the next section discusses the context surrounding recent modernisation experiments in Brazil.

3.0 EMPLOYER DEPENDENCE AND WORKER ALLEGIANCE IN THE BRAZILIAN CONTEXT

The 1990s saw a significant growth in interest in the possible effects of modernisation policies on industrial competitiveness and economic development in Brazil. Quality and productivity have become dominant industry and Governmental catchcrys³³. Academic commentators have also become more positive about the potential benefits for work and workers. However, this represents a vast change on the past. The quite exclusionary and corporatist industrial relations model and its place within an authoritarian political system meant that few could foresee changes such as those suggested by modernisation optimists³⁴.

The state based development model and the very encompassing set of rules governing union and worker behaviour, which began in the 1930s, changed little up to the mid-1980s³⁵. While applied to different degrees by subsequent regimes, the industrial relations model continued to be based on three 'pillars'. These were – the regulatory role of the Ministry of Labour, the Labour Code and related social welfare and labour court systems.

One of the effects of these codes and bodies was to determine, oversee and enforce a model of unionism which made unions non-workplace based, social welfare administrators. Various regulations governing union structures and finances and the normative powers of the labour courts to curtail strikes meant that unionism at all levels was largely controlled. While many basic statutory work benefits had been codified, workers were largely left to the whims of a very paternalistic and authoritarian employer class for the determination of their conditions³⁶.

Economic constraints and social and political pressure starting in the late 1970s led to a slow process of democratisation post 1985³⁷. While the economy and economic policy oscillated considerable during the decade of the 1980s, in 1989 many of the constraints on union and worker action were also relaxed³⁸. However, the monopoly of representation of local unions was retained, as was a system of automatic union financing. Moreover, workplace representation rights (and other issues of importance to the 'new union' movement) remain uncertain and dependent on local bargaining. This has meant that unions can still survive without having to be active and representative, particularly at the workplace level.

³³ For example, in 1990 the Federal Government launched an assistance programme for quality and productivity in industry along the lines suggested by optimistic theory (Ministério da Justiça et al – Programa Brasileiro da Qualidade e Productividade, Brasília, 1990). One of the more optimistic Brazilian studies is – J. Gonçalves and C. Dreyfus (coords), Reengenharia das Empresas – Passando a limpo, (São Paulo, 1995).

³⁴ For a classic work on this history see – G. Gomes, The Roots of State Intervention in the Brazilian Economy, (London, 1986).

³⁵ The features of the model (described below) are not disputed in the literature. See, for example, K. Erikson, The Brazilian Corporative State and Working Class Politics, (Berkeley, 1977) and M. Alves, 'Trade Unions in Brazil: A Search for Autonomy and Organisation', in Labour Autonomy and the State in Latin America, ed. E. Epstein, (Boston, 1989), pp 39-45.

³⁶ See, for example, in terms of the military period, Alves, 'Trade Unions in Brazil...', pp 47-49.

³⁷ See, M. Keck, 'The New Unionism in the Brazilian Transition', in Democratising Brazil: problems of transition and consolidation, ed. A. Stepan, (London, 1989).

³⁸ These issues are well discussed in – J. Morais, 'New Unionism and Union Politics in Pernambuco (Brazil) in the 1980s', (1992), Phd Thesis, LSE, University of London, pp 58-59.

In the period up to the late 1970s a very tough, low wage, high turnover form of workplace situation was observed by most Brazilian factory studies³⁹. There was little question of employer dependence. Yet studies of workers' attitudes suggested that, if fair, many workers had more confidence in a strong state than the broad, political and somewhat distant objectives of much of the union movement prior to the late 1970s⁴⁰.

In contrast, between the 1980s and late 1990s there were signs that this situation was changing. First, up to the mid-1980s many factory studies characterised factory conditions as 'routinised'⁴¹. This term encompassed relatively unfettered managerial prerogative to impose – narrowly divided tasks, extensive labour substitution, low salaries and high turnover. A major study of workers' attitudes at this time confirmed that, while workers were often fascinated by new technologies, there was a fear of substitution, powerlessness, more onerous work conditions and general employer abuse⁴². While the situation in firms where unions were more influential modified these experiences and opinions, there were widely held suspicions that firms were making productivity gains at the expense of workers and that worker autonomy was being progressively sacrificed.

Yet along with the progressive liberalisation of political and industrial relations processes during the late 1980s, factory studies began to observe a more developed modernisation model. The term 'Taylorised Just in Time' came to be used (by some) to describe a partially modernised factory where workers were being given new tasks but within which they continued to work under highly monitored and pressurised conditions⁴³. An important study of workers' attitudes during this period thus confirmed many of the pessimistic conclusions of the earlier study⁴⁴ in terms of workers' conditions and attitudes⁴⁵. It also signposted the possible increased use of 'greenfields' sites by modernising employers and the greater confidence that an active union gave workers.

Despite the instabilities created by the greater opening up of the Brazilian economy in the early 1990s, there were clear signs that a broader range of firms were beginning to apply more comprehensive modernisation models⁴⁶. While generally limited to large domestic firms and TNC subsidiaries, employers appeared to be opening themselves up to the prospect of greater dependency on the skills and attitudes of their employees. Workers were being given more involvement, jobs were broader, training and other new conditions were being offered and hierarchies and supervision levels were being reduced. Significant improvements in quality, productivity, scrap levels and absenteeism also began to be reported more frequently⁴⁷.

³⁹ A classic study of workplace conditions up to this period is – J. Humphrey, *Capitalist Control and Workers' Struggle in the Brazilian Auto Industry*, (Princeton, 1982).

⁴⁰ See for a review of these studies – Y. Cohen, *The Manipulation of Consent: The State and Working Class Consciousness in Brazil*, (Pittsburg, 1989), Ch 1 and for his study Chs 3-5. This type of union model, however, came to change significantly with the emergence of the 'new' (more representative, factory focussed) union movement from the late 1970s (Keck, ' New Unionism..')

⁴¹ A term coined by A. Fleury, 'Rotinização do Trabalho:O Caso das Indústrias Mecânicas', in *Organização do Trabalho*, eds. A. Fleury and N. Vargas, (São Paulo, 1982). See also, Humphrey, *Capitalist Control*.

⁴² L. Abramo, 'A Subjectividade do Trabalhador Frente à Automação' in *Automação e Movimento Sindical no Brasil*, R. Neder et al, (São Paulo, 1988).

⁴³ As suggested by J. Humphrey, 'Adaptando o "Modelo Japones" ao Brasil', in *Sobre o Modelo Japones*, org. H. Hirata, (Sao Paulo, 1993), p 255-256.

⁴⁴ Abramo, 'A Subjectividade..'

⁴⁵ M. Leite, *O Futuro do Trabalho: Novos Tecnologias e Subjectividade Operária*, (São Paulo, 1994).

⁴⁶ For examples see – A. Fleury and J. Humphrey, 'Human Resources and the Diffusion of and Adaptation of New Quality Methods in Brazil', *IDS Research Report*, 1993, 24 and J. Humphrey, "Japanese" Methods and the Changing Position of Direct Production Workers: Evidence from Brazil', in *Global Japanisation*, eds. T. Elgar and C. Smith (London, 1994) and Gonçalves and Dreyfus, *Reengenharia*.

⁴⁷ See – DIEESE, *Política Industrial, Restruturação Produtiva e Organização do Trabalho – Indicadores e Informações Relevantes*, no.1, 5/95.

However, there have been few studies of this more recent Brazilian modernisation phase using detailed interviews with workers – particularly in terms of what they think of their employer and union. Moreover, there are indications (i.e. due to the use of more stringent selection and evaluation systems) that Brazilian modernisers are also responding to the threat of their greater dependence through new systems of control⁴⁸. The fact that ‘greenfields’ sites are being used and that unions are still not being involved would seem to support this.

Due to this particular context, some authors have suggested that the recent stage of Brazilian modernisation can be characterised as an ‘Implicit Bargain’ – a new bargain over workplace conditions (in exchange for higher quality/productivity) is being made⁴⁹. However, due to past industrial relations traditions this is not an explicit trade-off. Following this, others suggest that most employers will choose the ‘easiest’ (more limited and controlling) modernisation path possible⁵⁰. Accordingly, the best that can be expected in terms of workers’ attitudes is consent.

On the other hand, weak unionism and the reputed passivity of Brazilian workers might suggest that even an ‘easy’ modernisation strategy could lead to the levels of worker allegiance that employers require for the levels of productivity and quality they desire. However, the determination of the (more recent) relation between an employer’s modernisation model and the nature of worker allegiance requires a depth of information about workers’ attitudes which has rarely been provided. Without such information optimists may suggest that workers have allegiance while pessimists may suggest that ‘false consciousness’ has a new form – workers are now dupes to the ‘quality’ policies of the modernising firm.

The following sections of this paper apply original data to these questions. Section 5.0 looks at how a sample of workers from four comparable Brazilian firms feels about their modernising employer and their union. The next section (4.0) sets the scene for this through a brief review of the nature of modernisation at the case study firms. An important aspect of this review is the question of how comprehensively modernising firms have responded to the risk that they have become more dependent on the skills and attitudes of their employees.

4.0 MODERNISATION AT THE CASE STUDY FIRMS – POLICY AND PRACTICE

Four firms, from within the previously unstudied ‘White Goods’ industry, were chosen as case studies. Two of these firms (three factories) produce refrigeration products and the other two washing products (e.g. washing machines, clothes and dish dryers). While there are important similarities amongst all the firms, the two by two grouping worked particularly well. Each was of comparable size, each had virtually the same requirements of production and one of each group appeared to be very advanced in its modernisation process while the others could be called traditional or partial modernisers. Broad characteristics of these case studies are shown in Table 1 below.

⁴⁸ J. Humphrey, ‘The Adoption of Japanese Management Techniques in Brazilian Industry’, *Journal of Management Studies – Special Issue*, (1995), 32, 6, pp 782

⁴⁹ Fleury and Humphrey, ‘Human Resources...’, pp 36-42.

⁵⁰ For example, see N. Castro, ‘Modernização e Trabalho no Complexo Automotivo Brasileiro – Reestruturação Industrial ou Japonização de Ocasão?’, *Novos Estudos Cebrap*, 1993, 37 and M. Leite, ‘Reestruturação Produtiva, Novas Tecnologias e Novas Formas de Gestão da Mão-de-Obra’, in *O Mundo do Trabalho*, orgs. C. Matosso et al, (São Paulo, 1994).

Table 1: Characteristics of the case studies

Firm/(Place)	Locational Type	TNC Links	Local Economic Structure
More Modernised:			
Brastemp (Rio Claro)	'Greenfield'	Strong / direct	Minimal industry / Some traditional manufacturing
Consul III (Joinville)	'Brownfield' but separate	Strong / Direct	Moderately important manufacturing areas
Less modernised:			
Enxuta (Caxias)	New location in old area	None	Regionally important industrial base
Brastemp (São Bernardo)	'Brownfield'	Strong/indirect	Key concentrated industrial base
Consul II (Joinville)	'Brownfield'	Strong/indirect	Moderately important manufacturing base

Source: Observation, interviews and secondary data

As shown in Table 1, the case studies showed variety in terms of locational type, their TNC (Whirlpool) connections and in terms of local economic structure. These features offer some support for the pessimistic supposition that modernising factories will be located in 'greenfields' areas and have stronger TNC links than other firms. The broader study's detailed review of modernisation policy and practice illustrates that, in fact, these characteristics are important to the form of modernisation strategy attempted⁵¹.

Tables 2 and 3 below, on the other hand, provide a summary of the key differences between these firms. The material in these tables illustrates the vast differences in processes and outcomes at the highly modernised Brastemp-Rio Claro (washing products; Table 3) and Consul III (refrigeration; Table 2) factories compared to conditions at the other establishments. Moreover, the following discussion highlights how these two examples would appear to support many of the characteristics of the optimistic modernisation model⁵².

⁵¹ A detailed presentation of these observations can be found in Pegler, 'The Politics of Modernisation', Ch 4.

⁵² Ibid.

Table 2: Factory Typologies and Outcomes - Refrigeration

Indicator / Factory	Brastemp São Bernardo	Consul – II	Consul – III
Management style and structures	Relatively hierarchical and closed	Some reduction in hierarchies; more participative	Flat structures, open relations, quite participative
Technology, techniques and layout	Older and not integrated	Mixed / not integrated	New and integrated
Workplace and human resources policies	Mainly a wage based relation / recent changes	Some new tasks / training	New tasks, training and workplace ambient
Supervision	Old / overt	Newer style	New and open
OUTCOMES:			
Productivity = products per worker per day	1.7	1.2	2.6
Turnover = % per annum	8.4 %	6.0 %	1.5 %
Wages = US \$ per month; skill weighted	US \$ 430	US \$ 344	US \$ 365
Supervision = % of factory employment	6.3 %	2.1 %	1.4 %
Skill level:			
- % skilled	13 %	9 %	10 %
- % semiskilled	12 %	11 %	30 %
- % unskilled	75 %	80 %	60 %

Table 3: Factory Typologies and Outcomes – Washing Products

Indicator / Factory	Brastemp – Rio Claro	Enxuta
Management style and structures	Open and participative	Closed, hierarchical – paternal / recent changes
Technology, techniques and layout	New, automated and integrated	Older / less automated / not integrated
Workplace and human resources policies	New tasks, benefits and opportunities	Few concerns for work pressure or conditions
Supervision	Open / less overt	Old style / overt
OUTCOMES*:		
Productivity	3.1	1.5
Turnover	2.4 % 1992 - 12.5 % 1993	61.2 %
Wages	US \$ 253	US \$ 292
Supervision	1.7 %	3.8 %
Skill level:		
- % skilled	7 %	11 %
- % semiskilled	3 %	10 %
- % unskilled	90 %	79 %

* Outcome measures as shown in Table 2

For example, in terms of management style and structures (row 1, Tables 2-3), these two firms (and their parent body Multibras/Whirlpool) have promoted a mission statement and management strategy which reflects the quality, continuous improvement and human resources principles of TQM and HRM in a classical sense. This strategy goes quite deep with each firm making significant reductions in reporting hierarchies as well as instigating

new participative mechanisms, cells and training opportunities. These changes have accompanied the integration of new process technologies, techniques such as JIT/Kanban and maintenance/quality procedures.

The nature of skills, employee relations and employment conditions also offer a stark contrast to the piecemeal changes attempted at the other firms (row 3, Tables 2-3). For example, while overall skill levels at the firms suggest ambiguous skill effects (row 10, Tables 2-3) due to modernisation, this is mainly due to structural relationships between the Multibras/Whirlpool firms. In fact, observation confirmed that workers at the two comprehensively modernised firms have a greater number of new tasks and responsibilities.

In terms of employee relations, workers at the two comprehensively modernised firms have closer team relations, reduced overt supervision and numerous opportunities to contribute. These workers also benefit from a very clean, organised ambient and substantial new training opportunities. At Brastemp-Rio Claro workers also have a shorter working week and a career scheme, the ultimate level of which would make them a multiskilled, technical worker.

In terms of outcomes, many of these results also fit the optimistic model (rows 6-9, Tables 2-3). For example, productivity is much higher at Brastemp-Rio Claro and Consul III. Labour turnover is also much lower there. This suggests that greater stability is evident, that employers can recoup much of their training costs and that workers may be happier to remain at the firm. Finally, these statistics suggest that direct supervision is in fact much lower at the comprehensively modernised firms.

However, there are a number of caveats to this picture⁵³. These might suggest that these firms have not opened up possibilities (and their dependence) to the degree suggested above. For example, 'greenfields' or low wage location has allowed them to offer wages which are low on industry standards but adequate for their local labour markets (row 8, Tables 2-3). Secondly, both of these firms have instigated extensive selection criteria and training programmes which do not closely match cognitive abilities to perform tasks. Workers at each firm are intensively 'trained' and screened in relation to attitudes to the employer and industrial disputation, 'what is quality', the 'importance of the firm' etc. Workers there are also much younger (25 vs 35 years) than at the other firms and perhaps more malleable to a firm based view.

At Brastemp-Rio Claro the qualitative nature of the labour use model is the most highly developed. For example, their career scheme awards skills, training and attitudes and workers are involved in the evaluation of their teammates. It is not hard to imagine that this would be difficult and divisive for workers while at the same time make it easier for the firm to relinquish some of its former direct supervision functions⁵⁴.

Supporting this greater internal control interpretation is the observation that, at Joinville, Consul (and Whirlpool) went to great lengths to replace the combative local union with a passive one. Overall Brazilian Whirlpool production has been progressively moved away from Brastemp-São Bernardo (a key area of high wages and union militancy) to Brastemp-Rio Claro and Consul-Joinville (one a 'greenfield' site and the other with a passive union). It appears to be of no coincidence that Whirlpool's purchase of Consul, Brastemp (and Embraco – the key input supplier company) has allowed the group to minimise unions, disputation and wages in this way.

⁵³ Ibid.

⁵⁴ Even greater support for the degree of managerial prerogative involved can also be seen from the fact that the firm was easily able to put the career scheme on hold (due to their concerns about wage growth) in 1998 and reinstitute it in 2001.

Attitudes to work confirm these negative suggestions in terms of employer dependence and control⁵⁵. For example, Consul II workers feel much less monitored and more interested in their work than do their counterparts in Consul III where overt monitoring is much less and tasks are 'new'. Brastemp-Rio Claro workers, on the other hand, feel particularly negative about work pressures. Overall, attitudes to work do not suggest that most comprehensive firm workers are any happier about their work or that they have any greater opportunities for progress than do workers at the other firms.

In summary, this review has confirmed that there are instances of comprehensive modernisation in the Brazilian context. However, these firms appear to be developing stronger internal control mechanisms and external barriers so that their dependence on the skills and attitudes of their workers is minimised and so that external threats to this are contained or avoided. Thus if the optimistic modernisation argument holds any credence it must be based on a stronger degree of worker allegiance to the employer. If this is the case, the apparent continuation of low trust, adversarial industrial relations in Brazil would suggest that this may have particularly negative implications for workers' attitudes to the union. The last section of this paper turns to these questions.

5.0 THE 'AXIS' OF WORKER ALLEGIANCE

The history of Brazilian workplace relations, while often paternalistic, would appear to suggest that workers have good reasons not to have much trust in employers. The unrepresentative nature of many unions during much of the 20th century also suggests that most workers will have little faith in unions' desire or ability to improve their working lives. However, general questions put to the sample suggest that the firm has become a strong referent for workers and that the union remains of minimal interest to most workers⁵⁶.

For example, 52% of the sample felt the firm had most power to determine their livelihood whereas 38% mentioned the state. In terms of *'in whom they have most confidence for the determination of their livelihood'*, 78% mentioned the firm, 16% others (including unions) and 6% the state⁵⁷. As these results appear to support the optimistic modernisation argument, the following two subsections examine these apparently 'employer positive – union negative' opinions in greater detail.

5.1 The Modern Employer – The Nature of Worker Allegiance

A number of the samples' responses suggest that the comprehensively modernising employer has been able to obtain a much firmer orientated workforce. For example, while regional wage comparisons may also be at play, workers at the low wage Brastemp-Rio Claro are happiest with pay (Table 4, row 1). More clearly, workers at the two comprehensively modernised firms feel most positive about their overall compensation (Table 4, row 2). That the comprehensively modernised firms have been able to obtain a workforce that is more firm focussed is also confirmed by workers' responses to a question about what determines their desire to leave or stay (Table 4, row 3).

⁵⁵ Pegler, 'Politics of Modernisation', Ch 5.

⁵⁶ Ibid., p 221.

⁵⁷ Ibid.

Table 4: Satisfaction with Employer policies

Question	Key Responses
Are you adequately paid?	Sample = 44 % yes Highest positive response by firm – Brastemp – Rio Claro (60%)
Your work is well compensated overall?	Sample = 60 % yes Highest positive response by firm – the two comprehensive modernisers (76 % - 83 %; Pr = 0.056)
Probability of (voluntary) stability depends on....?	Sample = 84 % conditions at firm, 27 % outside opportunities also. Comprehensive moderniser workers – greatest emphasis on developments at current firm Partial moderniser workers – less emphasis on developments at current firm (Pr = 0.082)

Source: Worker interviews

However, it is also clear that many workers have not gained much as yet (Table 5, row 1) and that the higher skill groups have high expectations of future gains (Table 5, row 2). Factory observation and other responses confirm that many workers are sceptical about what they have or will gain from the modernised firm⁵⁸. For example, opportunities to participate are highly geared to firm based issues (vs benefits), 'training' may not make them more employable generally and career expectations (at Brastemp-Rio Claro) remain just that. Workers at the highly modernised Consul III are not at all happy that less productive workers at Consul II gain the same pay rates.

Table 5: Impressions and Expectations of Gains

Question	Key Responses
What have you gained from the firm?	Sample – 47 % much, 53 % little – nil Skilled / semiskilled more satisfied than unskilled (Pr = 0.000)
What do you expect to gain from the firm?	Sample – 35 % much, 21 % little to nothing Skilled / semiskilled have high expectations – unskilled have low expectations (Pr = 0.040)

Source: Worker interviews

On the other hand, even the partial level of modernisation at the more traditional firms has led to the generalised opinion that the firm has more interest in workers than in the past (Table 6, row 1). Yet most workers (67%; Table 6, row 2) saw this as having a clear relation to a desire for greater profitability. What stands out within these responses is that Brastemp-Rio Claro workers appeared to have a more altruistic view of their firm's intentions but that workers' responses at the other comprehensively modernised firm (Consul III) did not agree. Combined with earlier comments about attitudes to work, pay and monitoring (at Consul III), this would suggest that if the optimistic hypothesis about attitudes to the employer works it only does so at one of the most modernised firms, Brastemp-Rio Claro.

Table 6: Belief in the Firm's Interest in Workers

Question	Key Responses
Firm has more interest in workers now?	Sample = 70 % yes Highest positive response by firm – Brastemp – Rio Claro and Consul II (76 %)
Why does the firm have more interest? (profit or altruistic emphasis?)	Sample = 67 % mainly due to profit Greatest belief in altruism by firm – Brastemp – Rio Claro and Consul II (Pr = 0.029)

Source: Worker interviews

⁵⁸ Fully discussed in Pegler, 'The Politics of Modernisation', Ch 5.4, pp 201-211.

Nevertheless, other indicators question even this modified result for workers' attitudes at the modernised firm. For example, preference rankings for workers suggested that career opportunity and participation were, along with pay, key issues⁵⁹. However, at the comprehensively modernised firms, where cellular relations and a career scheme operate (Brastemp-Rio Claro), workers are very unhappy with evaluation (Table 7, row 1).

Even though they work within more open and transparent evaluation systems, these workers still judge evaluation as biased to education and training (vs ability) and too subjective. At Brastemp-Rio Claro, in particular, workers appear very unhappy that this process uses peer pressure. Taking this suggestion of dissatisfaction with the employer to a more general level, it is very significant that most workers at Brastemp-Rio Claro and many of those at Consul III are just as likely to leave their firm voluntarily as are workers at the very oppressive Enxuta factory (Table 7, row 2).

The recent arrival of other comprehensively modernised firms in the Rio Claro locality may add to this pessimistic result for the attitudes of Brastemp-Rio Claro workers to their employer. This is because these new firms are offering much higher (metals industry based vs local labour market) wages. This development may therefore also change the previously positive views of Brastemp-Rio Claro workers as to their employer's wage policies (Table 4)

Table 7: Satisfaction with Evaluation and Probability of Voluntary Turnover

Question	Key Responses
Like the (promotional) evaluation system	Workers from two most comprehensively modernised firms don't like (80 % and above) Partial moderniser workers do like (55 % – 60 %) – (Pr = 0.012)
Expect to (voluntarily) leave firm in next 2 years?	Sample – 28 % yes Most Enxuta and Brastemp – Rio Claro workers and 50 % of Consul III workers much more likely to leave (Pr = 0.004)

Source: Worker interviews

The above results in respect to attitudes to the employer question the proposition that even 'passive' Brazilian workers will develop allegiance to the modernised employer. Workers' views seem very instrumental and may vary by issue. Overall, acquiescence or 'as if' allegiance might be better terms to use for attitudes to an employer who is putting more and new expectations on them.

While recognising that unions may have new and greater difficulties 'penetrating' the human resource and industrial relations framework which these firms are trying to build, might this suggest that workers have a latent demand for greater union representation? If so, what form should this take? The following subsection summarises the samples' attitudes to the union – both now and for the future.

5.2 Unions as a 'Voice' – Workers' Views and Expectations

As is clear from Table 8 below, there is great variety in the degree of unionism between these firms⁶⁰. The high level of unionism at Brastemp-São Bernardo reflects the powerful and influential role of that union, both within local workplaces and more generally.

⁵⁹ Ibid., pp 180-184.

⁶⁰ These figures relate to additional, voluntary union membership not the compulsory union tax that is removed from all workers wages to support union structures.

Internal disputes and the lack of a clear workplace role have left unionism at Enxuta at very low levels. On the other hand, unionism is very low at the comprehensively modernised, 'greenfields', Brastemp-Rio Claro site.

Table 8: The Nature of Unionism, by sample and firm⁶¹

Union Type	Non Member	Passive Member	Active Member
Sample:	53%	32%	15%
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

More surprisingly, unionism is high at both Consul factories. While this may seem to conflict with a pessimistic interpretation of the modernisation process it may be explained by two observations. First, as alluded to earlier, two months after a radical group gained control of the local union (the *Mecânicos*) in 1989 the company successfully replaced it with a very passive (service, not workplace orientated) union (Sinditherme). Moreover, while both firms have high unionisation rates, it appears to be active union attachment which separates the factories and the selection of workers for factory III (Table 8, row 2).

Nevertheless, unionisation statistics can tell us only so much about workers' attitudes. The views of all workers within the sample can be used to more specifically test the suggested links between modernisation and attitudes to the union and unionism. The following discussion of attitudinal indicators confirms the view that context and union strategy will have a strong impact on whether modernisation is able to shape workers' attitudes in the way theory suggests.

First, as summarised in Table 9, the more modernised the firm the less aware are workers of the union's policies (row 1). A large proportion (71%) of the sample, particularly at the comprehensive firms, also felt that the union was not a good one (row 2). A similar question about attitudes to the union's policies supported this opinion⁶². It would therefore appear that these firms have achieved (by persuasion and/or selection) a less union orientated workforce.

Table 9: Awareness of Union Policy and Overall Assessment of the Union

Question	Key Responses
Are you aware of your local unions' policies?	Sample – 80 % yes By firm – the more modernised the least aware (PR = 0.001)
Is the local union good?	Sample – 71 % not good Comprehensive modernisers – the most negative (Pr = 0.000) Consul II response (50/50) much different to Consul III (100 % no)

Source: Worker interviews

⁶¹ Active/passive unionism are self defined. Passive refers solely to the use of union services whereas active relates to other, more political relations with the union.

⁶² Ibid., pp 243-244.

However, the result at the Consul factories is an ambiguous one (Table 9, row 2). This and other (see below) responses suggest that the supposedly passive Consul III sample may be more negative about their (passive) union (Sinditherme) than their counterparts in Consul II. Alternatively, or in addition to this, perhaps many Consul II workers still think in terms of their older, more active union (the *Mecânicos*).

Nevertheless, workers' awareness of the very different orientations of their unions was clearly reflected in their views about what they felt their unions' policies were – 30% nothing, 19% workplace issues and 51% a traditional (wage and service) orientation⁶³. Moreover, cross tabulated responses for the sample as a whole suggest that there was a clear endorsement that, if the union had active workplace policies it was more likely to be judged as good (Table 10).

Table 10: Impressions of the Union based on its Policy Approach, key responses

Combined questions	Key Responses
Local unions' policies are / union is good?	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?	Sample – union seen to have labour process policies is more likely have its policies liked uncategorically (Pr = 0.000)

Source: Worker Interviews - cross-tabulated responses.

Following this, what then would the union have to do to gain greater support from workers (whether they are presently union members or not)? In this regard, for the sample overall it appears that many workers believe the union should do more. More than 60% of the sample felt that their union should be involved in workplace issues (Table 11). Nearly half of the sample also felt that the union did not yet have, but should have, clear policies focussed on the workplace (Table 12, row 2).

Table 11: Policy Expectations of the Union

Question	Key Responses
What policies should the union have?	Sample – 65 % workplace / labour process issues; 23 % traditional issues, 12 % 'nothing' By Firm: Brastemp – Rio Claro – significant number said 'nothing' (33 %; Pr = 0.012) Consul III – 100 % said workplace / labour process issues Consul II – 70 % workplace / labour process, 30 % traditional

Source: Worker interviews

Table 12: 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.

⁶³ Ibid.

While the view of Consul workers overall supports this, it appears that Consul III workers are particularly unhappy with the lack of a (critical) workplace approach by their passive union (Table 11). On the other hand, Consul II workers feel that their union should do more about both traditional and workplace issues (Table 11). In fact, a fairly typical view of Consul workers was confirmed by the sentiment *'union?... we don't have a union here. If you complain to the union here you are out on the street the next day!'*⁶⁴

Most striking is the fact that workers at the comprehensive 'greenfields' site (Brastemp-Rio Claro) are unhappy with their local union (Tables 9, 11) but not too negative about unions in general. Many felt that *'unions are important...they protect workers.. but not here, they are not needed here'*⁶⁵. Thus, in contrast to the other firms it appears that management at Brastemp-Rio Claro has had most success in achieving a workforce which (while often believing in unions in general) has few attachments to their local union. All other workers within the sample clearly want a local union with an active and questioning approach to workplace change.

This suggestion of workers' latent desires for a more active, independent union receives a degree of support from other responses. For example, 55% of the sample felt that the union should strike – either over some or an unlimited range of issues (Table 13, row 1). Also, confirming the suggestion that some workers at comprehensively modernised firms are not happy with passive unionism, workers at Consul III registered a more militant and strike positive attitude than their workmates in Consul II (Table 13, row 1). Moreover, the fact that 55% of the sample saw some need for strikes but only 47% were unionised (Table 8) adds weight to these latent desires. This gains further support from the fact that 37% of the sample felt both that the union as not good and that some type of strike action should be pursued (Table 13, row 2).

Table 13: Assessing the Union on Strike Action, key responses

Questions	Key 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% of whom said never)
Union is good / when should strike?	Sample – 37% union not good/should consider strike action.

Source: Worker interviews

In summary, management at the ultra modern Brastemp-Rio Claro has achieved a workforce which, while often positive about unions in general, does not feel they need a union at their particular site. Yet whether this reticence to be aligned to the union gives reason to suggest the emergence of employer allegiance remains in question. Outside of such 'greenfields' situations, it appears that if a union is both independent and actively involved in workplace matters they may not loose worker support. The responses of workers at the other sites (both traditional and highly modernised) suggests that there may even be a chance that workers will increase their attachment to, and support of, a union of this type.

⁶⁴ Consul worker interview, CONII14 – Ibid., p 256.

⁶⁵ Brastemp-Rio Claro worker interview, RCL 18 – Ibid., p 255.

6.0 SUMMARY AND CONCLUSION

The evidence reviewed within this study allows a number of reflections to be made about the issues of employer dependence and worker allegiance in the Brazilian context. First, while there are a growing number of examples of comprehensive modernisation in Brazil, this study suggests that such firms will react to the prospect that they will become more dependent on the skills and attitudes of their workers with a variety of policies. Within the firm, new forms of worker control have been developed or refined. 'Greenfields' location may greatly assist this process. In terms of union influence, traditional policies of union avoidance/minimisation have been added to by the message - 'why are they needed when conditions within the "family of the firm" are so good'. The application of this unitarist HRM model within the present Brazilian industrial relations context makes it highly unlikely that dual allegiance to both employer and union will be of much significance.

Secondly, despite this pessimistic setting, the evidence suggests that workers can be persuaded to think in terms of an effort bargain which includes issues beyond just remuneration. Many workers are also positive about this in principle and, consequently, those at the most modernised firms are taking a more firm based approach. However, as with workers' attitudes to many of the new aspects of their work, their degree of attachment to the firm is limited. Most workers are unhappy about aspects of their relationship with the firm (e.g. evaluation) while many continue to wait for 'future' gains. Due to such uncertainties, 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 firms.

Thirdly, in terms of the worker-union relation, the cynicism of Brazilian workers to unions may have been heightened by the policies of the comprehensively modernising firm. The union's 'electorate' remains very sceptical and may even have shifted its priorities. However, part of this result may be due to the anti-union policies of the firms rather than due to the persuasive effect of internal policies per se. Moreover, despite low levels of unionism (or active unionism) at the more modernised firms, many workers are fairly positive about unionism and strikes. Yet, in such cases, support for the local union is conditional on union policies being directed towards the promotion of workers' key workplace concerns.

Fourthly, while these specific results are influenced by the Brazilian context they do raise questions about the attitudinal and behavioural underpinnings of modernisation in any context. Workers' needs appear to be very practical and instrumental and their 'allegiance' may change by issue and over time. As long as employers act to minimise the risk to which they may become more dependent on workers, employee behaviour will, at best, only appear to indicate that they have more allegiance to the employer. Moreover, outside of the most isolated 'greenfields site, the latent concerns of many workers suggest that unions may not become more ineffectual and irrelevant - if they cleverly develop new and active strategies for labourers at the workplace.

Finally, at a more conceptual level, these results offer much more support for a labour process perspective than they do for the optimistic hypothesis. A Burawoy type approach – particularly when new, more subtle forms of control are taken into account – seems most applicable. Within this perspective, agency and context (including the role of TNCs, union strategies and industrial relations norms) can play an important role in determining the form and effects of modernisation.

SELECTED BIBLIOGRAPHY

- Abramo L.. [1988] 'A Subjectividade do Trabalhador Frente á Automação' in R. T. Neder et al, Automação e Movimento Sindical no Brasil, São Paulo: Hucitec
- Ackers P., Smith C. and Smith P. [eds] [1996] The New Workplace and Trade Unionism, London and New York: Routledge.
- 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.
- Appelbaum E. and Batt R. [1994] The New American Workplace – Transforming Work Systems in the United States, New York: ILR Press.
- Bemmels B. [1995] 'Dual Commitment: Unique Construct or Epiphenomenon?', Journal of Labor Research, 16, 4.
- 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.
- Bordin M. [1986] 'The Brazilian Industrial Relations System (1930-64): Unionism or Corporatism?', Labour and Society, 11,1.
- 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.
- 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.
- Carvalho R. and Schmitz H. [1989] 'Fordism is alive and well in Brazil', Institute of Development Studies Bulletin, 20,4.
- Castro N. [1993] 'Modernização e Trabalho no Complexo Automotivo Brasileiro - Reestruturação Industrial ou Japonização de Ocasão?', Novos Estudos - CEBRAP, 37.
- Cohen Y. [1989] The Manipulation of Consent: The state and working class conciousness in Brazil, Pittsburgh: Pittsburg University Press.
- Cordova E. [1989] 'From Corporatism to liberalisation: The new directions of the Brazilian system of industrial relations', Labour and Society, 14,3.
- Coutinho L.. [1992] 'A Terceira Revolução Industrial e Tecnológica', Economia e Sociedade, 1, August.
- 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.
- Elgar T. and Smith C. [eds] [1994] Global Japanization? - The transnational transformation of the labour process, London and New York: Routledge.

- Erickson K. [1977] The Brazilian Corporative State and Working Class Politics, Berkeley: University of California Press.
- Ferraz J. et al [1992] Development Technology and Flexibility: Brazil Faces the Industrial Divide, London/New York: Routledge.
- 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
- Fleury A. [1983] 'Rotinização do Trabalho: O Caso das Indústrias Mecânicas' in A. Fleury and N. Vargas [eds], Organização do Trabalho, São Paulo: Atlas.
- 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.
- Gomes G. [1986] The Roots of State Intervention in the Brazilian Economy, New York and London: Praeger.
- 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.
- Guest D. [1995] 'Human Resource Management, Trade Unions and Industrial Relations', in J. Storey ed., Human Resource Management: A Critical Text, London: Routledge.
- 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.
- Guest D. and Dewe P. [1988] 'Why do workers belong to a trade union?', British Journal of Industrial Relations, 26, 2.
- Harrison G. [1986] 'Trade Unions and Labour Management: A Brazilian Case Study', Ph.D Thesis, Department of Sociology, University of Manchester.
- Hirate H. (org) [1993] Sobre o "Modelo" Japonês - Automação, Novas Formas de Organização e de Relações de Trabalho, São Paulo: EDUSP/Aliância Cultural Brasil-Japão.
- Humphrey J. [1995] 'The Adoption of Japanese Management Techniques in Brazilian Industry', Journal of Management Studies- Special Issue, Vol. 32, 6.
- Humphrey J. [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.
- Humphrey J. [1993] 'Japanese Production Management and Labour Relations in Brazil' Journal of Development Studies, 30, 1.
- Humphrey J. [1982] Capitalist Control and Workers' Struggle in the Brazilian Auto Industry, Princeton: Princeton University Press.
- Jermier J., Knights D. and Norn W. [eds] [1993] Resistance and Power in Organizations, London: Routledge.
- Keck M. E. [1989] 'The New Unionism in the Brazilian Transition'; in A. Stepan [ed], Democratising Brazil: problems of transition and consolidation, New York: Oxford University Press.

- Kelly J. and Kelly C. [1991] 'Them and Us: Social psychology and the "new industrial relations" ', Journal of Industrial Relations, 29, 1.
- 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..
- Kesler G. [1995] 'A Model & Process for Redesigning the HRM role, Competencies and Work in a Major Multi-national Corporation', Human Resource Management, 34, 2.
- 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.
- Knights D. and Willmott H. [eds] [1986] Managing the Labour Process, Aldershot: Gower.
- Kochan T. and Osterman P. [1994] The Mutual Gains Enterprise, Boston: Harvard Business School Press.
- Leite M. [1994a] O Futuro do Trabalho: Novas Tecnologias e Subjectividade Operária, São Paulo: Pagina Aberta.
- Leite M. [1994b] 'Reestruturação Produtiva, 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
- 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.
- 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.
- Lopes J. R. B. [1964] Sociedade Industrial no Brasil, São Paulo: Difusão Européia do Livro.
- Lukes S. [1977] Power - a Radical View, 3rd ed., London: Macmillan.
- 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.
- 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.
- 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.
- Moisés [1982] 'What is the strategy of the new syndicalism?', Latin American Perspectives, Issue 35, 9,4.
- Morais J. [1992] "'New Unionism" and Union Politics in Pernambuco (Brazil) in the 1980's', PhD Thesis, LSE, 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.
- 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.
- Oliver N. and Wilkinson B. [1988/92] The Japanization of British Industry, Oxford: Basil Blackwell.

- Payne L.. [1993] Brazilian Industrialists and Democratic Change, Baltimore: Johns Hopkins University Press.
- Pegler L.. [2000] 'Workers, unions and the 'politics of modernisation': labour process change in the Brazilian white goods industry', PhD Thesis, LSE, University of London
- Piore M. and Sabel C. [1984] The Second Industrial Divide: Possibilities for Prosperity, New York: Basis Books.
- 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.
- Rodrigues L. M. [1970] Indústrialização e Atitudes Operárias. Estudo de um grupo de Trabalhadores, São Paulo: Editôra Brasiliense.
- Salerno M. [1993] 'Modelo Japonês, Trabalho Brasileiro' in H.Hirate [org], Sobre o Modelo Japonês, São Paulo: EDUSP/Aliancia Cultural Brasil-Japão.
- Salm C. and Fogaça A. [1992] 'Modernização Industrial e A Questão dos Recursos Humanos', Economia e Sociedade, 1, August.
- Sewell G. and Wilkinson B. [1992] 'Someone to watch over me: Surveillance, discipline and the Just-in-Time labour process', Sociology, 26, 2.
- Silva E. B. [1991] Refazendo a Fábrica Fordista, São Paulo: Hucitec.
- Spencer A. [1994] 'Models of Organization and Total Quality Management: A Comparison and Critical Evaluation', Academy of Management Review, 19, 3.
- Storey J. [ed] [1995] Human Resource Management: A Critical Text, London and New York: Routledge.
- Sturdy A., Knights D. and Willmott H. [eds] [1992] Skill and Consent - Contemporary Studies in the Labour Process, London: Routledge.
- 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.
- Tuckman A. [1994] 'The Yellow Brick Road: Total Quality Management and the Restructuring of Organizational Culture', Organizational Studies, 15, 5.
- Vargas N. [1985] 'Gênese e Difusão do Taylorismo no Brasil', Revista Ciências Sociais Hoje, São Paulo: Cortez-ANPOCS.
- Walton R. [1985] 'From control to commitment in the workplace', Harvard Business Review, March-April.
- Wiarda H. [1978] 'Corporate 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.
- 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.]